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5K iMAC

Apple launches
iMac with Retina
5K display,
OS X Yosemite,
new iPads
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Mixed updates, mixed feelings

Apple's media event in October, held in the company's Cupertino campus in front of a shrunken crowd, provided both a clear step forward for the company and an opportunity missed.

While the event was devoid of engaging changes to the iPad lineup and the already unveiled OS X Yosemite, the unearthing of the new iMac offers 14.7 million reasons to be excited. Equipped with a Retina 5K display, the 27in desktop Mac keeps the slim profile and silver aesthetic that has adorned the lineup since 2012 and takes its place at the top of the list.

As Apple did with the MacBook Pro and iPad ranges, when the Retina display models became available, it has left the low-end alone. Those who do not seek the extra pixels on offer, or cannot justify paying the premium to get them, will choose the more appropriate Macs. However, there is no denying that the \$2999 price tag for a Mac with top-of-the-line specifications and a 5120 x 2880 display – a price that some may pay for the display alone – is an appealing prospect.

The announcement that came without surprise was the launch of OS X Yosemite. It is an update that further binds the Mac with iOS. Despite the lack of enthusiasm borne from the flatter

and transparent design that some have conveyed, the usefulness of the Continuity features, backed by iOS 8, makes the free update one that I made without question. And, after a week, the vibrant look has become as normal as the jump from iOS 6 to iOS 7.

While I am encouraged by the 5K iMac and Yosemite, I cannot feel the same when I turn my attention to the two new iPads Apple launched on the same morning.

The iPad Air 2 is 18 percent thinner, now features the colour options and Touch ID sensor first seen on the iPhone 5s and provides the annual improvements to the device's Wi-Fi and camera. All are great on paper and keep Apple's tablet as the best option on the market, but will not entice too many trade-ins.

The demand for the new iPad mini 3 would be even less. The new 7.9in iPad keeps the same internal feature set as the iPad mini 2, with the exception of the Touch ID integration, altered storage allotments and an additional gold colour option. Why would many choose to pay the extra \$100-plus for the features above?



STAFF PICKS

What would you like for Christmas?



JONATHAN STEWART

MACBOOK AIR

I have craved a MBA with a Retina display for a while, but I think it is time to bite the bullet and ask Santa for a new Mac.



MADELEINE SWAIN

NEW DEVICES

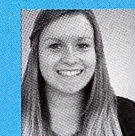
I am using an iPhone 4 and an iPad 2, so a little update of either would be jolly. But first a TV with built-in DVD.



TYNAN MCCARTHY

IPHONE 6

Telstra to waive my re-contracting fee so I can get an iPhone 6. I can't wait to get my hands on one.



MONIQUE BLAIR

IMAC

I'd really like an iMac with 5K Retina display. Who doesn't want 14.7 million glorious pixels?

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(niche:)
DIGITAL



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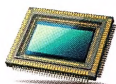
Blackmagicdesign



Lenses and accessories shown are not included

Introducing Blackmagic URSA, the world's first user upgradeable 4K digital film camera!

Blackmagic URSA is the world's first high end digital film camera designed to revolutionize workflow on set. Built to handle the ergonomics of large film crews as well as single person use, URSA has everything built in, including a massive 10 inch fold out on set monitor, large user upgradeable Super 35 global shutter 4K image sensor, 12G-SDI and internal dual RAW and ProRes recorders.



Super 35 Size Sensor

URSA is a true professional digital film camera with a 4K sensor, global shutter and an incredible 12 stops of dynamic range. The wide dynamic range blows away regular video cameras or even high end broadcast cameras, so you get dramatically better images that look like true digital film. The extra large Super 35 size allows for creative shallow depth of field shooting plus RAW and ProRes means you get incredible quality!



Dual Recorders

Blackmagic URSA features dual recorders so you never need to stop recording to change media. That's critical if you are shooting an historical event, important interview or where you just cannot stop shooting! Simply load an empty CFast card into the second recorder and when the current card is full, the recording will continue onto the second card, allowing you to change out the full card and keep shooting!



User Upgradeable Sensor

Blackmagic URSA features a modular camera turret that can be removed by unscrewing 4 simple bolts! The camera turret includes the sensor, lens mount and lens control connections and can be upgraded in the future when new types of sensors are developed. This means your next camera will be a fraction of the cost of buying a whole new camera! Choose professional PL mount, popular EF mount and more!



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HAVE YOUR SAY

LETTER OF THE MONTH

SYNCING ISSUES

My existing iMac cannot use software past Snow Leopard (10.6.8) so it is unable to load iTunes 12. My new iPhone 6, however, would not sync (ripped music) with the iMac running iTunes 11.4. There was no problem with receiving stuff direct from the iTunes Store as this method apparently bypasses the iTunes in the iMac.

Nor was there any problem syncing with my old iPhone 4 or 4s, an old 8GB iPod nano, my iPad, any memory stick or even a Nokia N900.

Clearly software was an issue here.

Anyway I was booked for an appointment with my local Apple Store by AppleCare and they went through the whole process in order to achieve syncing, all to no avail.

I was told that as I was unable to upgrade to iTunes 12 my only option for getting my 64GB iPhone to fulfil its intended purpose; i.e. stream music in my car, was to buy a more modern computer.

To say I was annoyed was an understatement, but I kept persisting in a calm way making it clear that this was an unacceptable 'solution' given it was Apple software that was locking me out of the Apple iPhone.

I was referred further up the food chain and was fortunate to be served by a staff member who recognised the problem as software based. He agreed to investigate further given I had lumped my iMac to the store at their insistence to rule out a hardware issue.

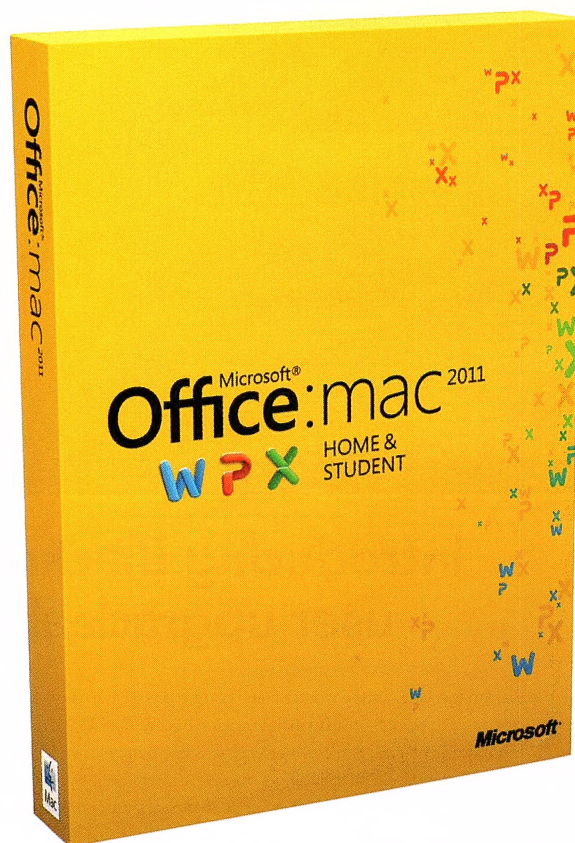
He came back some time later to advise that he had identified the problem and believed he had a fix and was going to download some software.

He then brought to the counter a USB stick with an updated but yet unreleased version of iTunes 11.4 which he loaded onto my iMac, which appears as 11.4 (18).

Problem solved.

It took a terrible amount of effort on my part to get to this point and it seems from the websites the problem is a common one. It shouldn't be this hard and I have provided feedback to Apple that they need to improve their problem solving strategy to save everybody the time and aggravation.

John

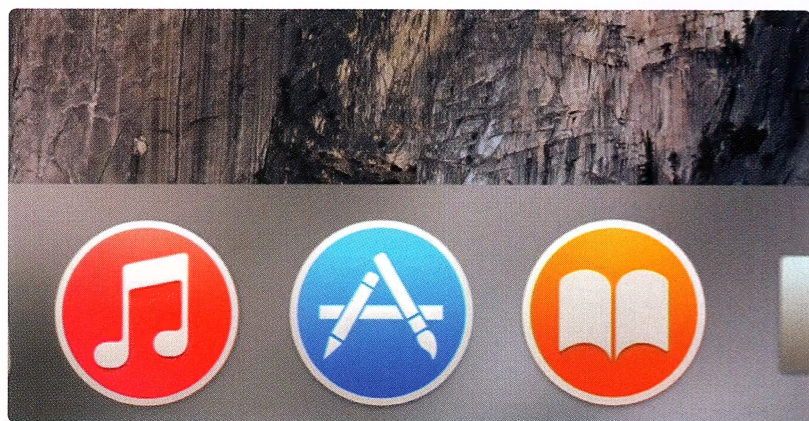


NEW OFFICE FOR MAC

In reference to the news article, 'Next Office for Mac leaks, shots of UI appear' (bit.ly/1wGKvMa), the update to Office for Mac is long overdue, especially in the case of Outlook.

I do hope that Microsoft will, this time, finally relent and give us a real version of Outlook and not the halfway version that uses some web interface to connect to Exchange, unlike our PC cousins who, of course, get the full experience. I doubt they will, but the optimist in me dares to hope. It will be good to see the back of some very annoying Outlook bugs.

Bryan



OS X YOSEMITE'S NEW LOOK

When will Apple get rid of that childish looking OS X interface design and go back to classic 3D style graphics? For example, the dock in Yosemite looks like it was drawn by a pre-school child – really, it does look cartoonish.

I, like so many others, prefer a more sophisticated look and feel to the graphics, Yosemite just looks cheap.

Stephen

MY CATCH 22

My experience in downloading Mavericks was horrible – it took 12 hours overnight and yes I am on broadband. I still can't log into my Apple ID on one machine as it demands logins for Messages and other features for which I have no use. I do not require the message function and I prefer not to use the cloud for contact or reminders. I backup with my own devices.

It strikes me as a funnel that is Apple forever tightening its grip on its users. The presentation is scarcely any improvement and bloatware is piled on bloatware.

The list view in iTunes is not in the menu and the heavy numbers giving unread counts in Mail are unsightly. The developers are tinkering around the edges rather than giving users substantial improvements and truly innovative developments. Who really needs Handoff?

It is unlikely that I will use many of the features promoted by Apple and lauded by its sycophantic press and fan base. But I feel obliged to upgrade to avoid losing support and functionality. Catch 22.

George

LIMITED PERSPECTIVE

In response to the letter in the September issue from 'Perspective', I was unfortunate enough to have to go to Centrelink recently and I was impressed with the fact that the young woman went through the queue with her iPad getting everybody sorted – so that names were called and wait time was shortened. So I would say it certainly is a viable business device.

Elaine

BREAKTHROUGH BATTERIES

In regards to the *Macworld Australia* article, 'Breakthrough batteries last 20 years, charge 70 percent in two minutes' (bit.ly/1nS6H6g), it will be interesting to see how the discovery translates into reality. Such an advanced energy storage device could affect everything from car design (both regular batteries and hybrids) as well as the rollout of solar power, as the batteries could provide power at night.

AussieMacUser

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- Comments on stories or Forum posts on www.macworld.com.au are also eligible for the prize.
- We reserve the right to edit letters and probably will.
- Letters of fewer than 200 words are given preference.



This month's prize to the *Macworld Australia* reader who submits what we think is the most interesting letter is a Bateck Free Standing Dual Horizontal LCD Monitor Stand, worth \$98, from Anyware.

The Bateck monitor stand can hold two LCD or LED monitors up to 23in in size and 8kg in weight, providing users with the option to elevate two displays side by side.

The stand allows the attached displays to tilt 15°, swivel 180° and rotate 360° from landscape to portrait.

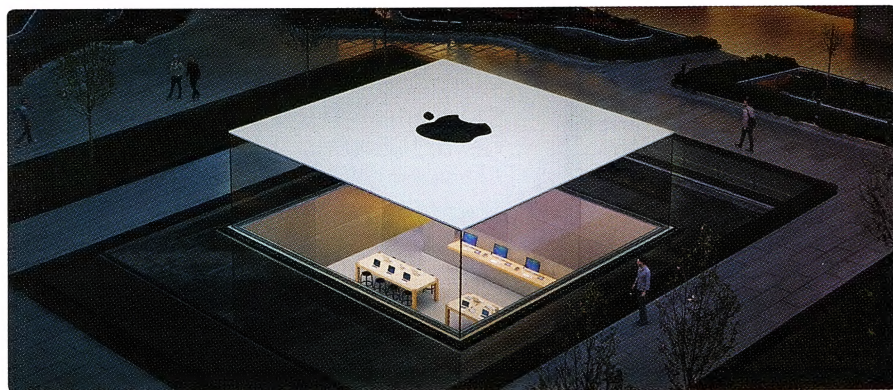
The Bateck stand spans 71.2cm in width, 37.5cm in height and 30cm in depth, and features a heavy-duty aluminium base.

www.anyware.com.au

TERMS AND CONDITIONS. Letter of the month 1. Instructions on how to enter form part of these conditions of entry. 2. To enter send tips or queries to editor@macworld.com.au with a subject header of "Letter to the Editor". Entries will be judged by the editorial staff of *Macworld Australia*. The judges' decision in relation to any aspect of the competition is final and binding on every person who enters. No correspondence will be entered into. Chance plays no part in determining the winner(s). Each entry will be individually judged based on its degree of interest. 4. Employees, their immediate families and agencies associated with this competition are not permitted to enter. 5. The Promoter accepts no responsibility for late or misdirected entries. 6. The best entry/entries as determined by the judges will win the prize(s). 7. The Promoter is neither responsible nor liable for any change in the value of the prize occurring between the publish date and the date the prize(s) is claimed. 8. The prize(s) is not transferable and will not be exchanged for cash. 9. The winner(s) will be notified by email. 10. All entries become the property of the Promoter. 11. The collection, use and disclosure of personal information provided in connection with this competition is governed by the Privacy Notice. 12. The Promoter is Niche Media Pty Ltd of 142 Dorcas Street, South Melbourne, Victoria 3205 Ph 03 9948 4900, (ABN 13 064 613 529).

HOT STUFF

A selection of Apple, Mac and iOS news from Macworld.com.au



IPHONES DIAL IN LARGER APPLE PROFIT IN FOURTH QUARTER

Apple's iPad shipments declined, but strong iPhone 6 and 6 Plus sales buoyed the company's profit in its fourth quarter for fiscal 2014.

Apple's net profit was US\$8.5 billion during the quarter, up from US\$7.5 billion in the same quarter one year ago, the company said in October.

Revenue was US\$42.1 billion for the quarter ending on 27 September, growing from US\$37.5 billion in the same quarter last year. Analysts polled by Thomson Reuters expected revenue of US\$39.88 billion for the quarter.

iPhone shipments were 39.27 million units in the fourth quarter, increasing from 33.8 million units in same quarter last year. iPad shipments were 12.3 million, falling from 14.08 million units a year ago. Mac shipments totalled 5.5 million units, compared to 4.58 million units during the year-ago quarter.

Apple sold more than 10 million iPhone 6 and iPhone 6 Plus smartphones in the first three days they shipped, from 19 September.

In tablets, Apple is losing ground to Android device makers Samsung, Lenovo and Asus. The iPad Air 2 and iPad mini 3 tablets were unveiled in October, though the devices are considered minor upgrades from predecessors introduced last year.

Apple is dipping its feet in wearables with the Apple Watch, which was introduced during the quarter and will ship early next year.

The Mac business is also seeing a revival of sorts. Apple last week started shipping the 27in iMac with Retina 5K display, which can show images at a 5120 x 2880 pixel resolution, and also slashed the starting price of Mac mini to \$619.

Apple issued a dividend of US\$0.47 per share. The company is projecting revenue of between US\$63.5 billion and US\$66.5 billion for the first fiscal quarter of 2015.

APPLE PAY ACTIVATED ONE MILLION TIMES IN FIRST THREE DAYS

Apple's new contactless payment system on the iPhone 6 saw one million activations in its first three days of use, pointing to an initially

enthusiastic response from US Apple users. Apple CEO Tim Cook revealed the number during an on-stage interview in October at *The Wall Street Journal's* technology conference in California. Cook said he uses it himself at his local supermarket.

Apple Pay was released on 20 October in the US and allows users to make tap-and-go payments from their smartphones at retailer terminals equipped with wireless NFC (near field communication) readers, of which there are over 200,000 in the US.

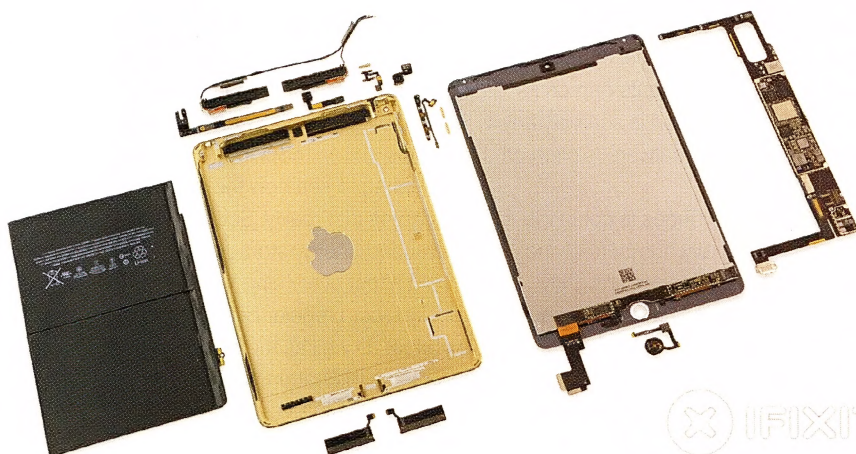
At launch, Apple Pay is being offered to users with an iPhone 6 and US credit or debit card. Apple plans to launch it overseas in 2015.

IFIXIT TEARS DOWN IPAD AIR 2 AND IPAD MINI 3

A teardown of Apple's iPad Air 2 turned up a surprise: an NFC module.

According to iFixit, the NXP 65V10 NFC Controller is the same one that Apple uses for Apple Pay in its iPhone 6 and iPhone 6 Plus. The same chip also appears inside Apple's iPad mini 3, iFixit found in its teardown of the smaller tablet.

Apple Pay lets users check out at retail stores by tapping their phones against a payment terminal, but that feature isn't currently available to iPad users. While



some reviews speculated that the new iPads simply lacked the necessary NFC chip, iFixit's teardown proves otherwise.

It's unclear why Apple hasn't enabled Apple Pay checkouts on the iPad, though it could be a bit awkward to brandish a tablet at the cash register.

Apple wouldn't throw in an NFC chip if it didn't plan to use it somehow. This could be a sign that Apple plans to open up NFC to more uses in the future, such as smart home controls or secure money transfers between iOS devices. Perhaps it could even allow iPad-based payment terminals to accept Apple Pay.

MICROSOFT SAYS NEW OFFICE FOR MAC DUE IN 2015

It's been four long years since Microsoft released the last version of Office for the Mac, in 2010. And it will be one more before the next version arrives, Microsoft said in November.

But to tide you over until then, there's a new version of Outlook.

Although Microsoft released the latest version of its email client, the roadmap to the next version of Office is the real news. In the first half of 2015, Microsoft will release a public beta version of Office for Mac, which includes Word, Excel, PowerPoint and OneNote. In the second half of 2015, the

company said, Microsoft will ship the final version. Current Office 365 subscribers will be able to upgrade for free, as expected; Microsoft also said that it would ship a "perpetual licence of Office for Mac" (aka a standalone version) in the same time-frame.

Given that Office 365 users are still stuck using Office for Mac 2011, however, there hasn't been much incentive to sign up for Office 365 – save for the excellent Office for iPad apps, OneDrive cloud storage and free Skype calls.

Microsoft issued an apology of sorts for the delay, noting that it had put the Mac on the back burner while it developed mobile versions for the iPad and other platforms. "Following the release of Office 365 we made the conscious decision to prioritise mobile first and cloud first scenarios for an increasing number of people who are getting things done on-the-go more frequently," Microsoft's Office team said in a blog post. "This meant delivering and continuing to improve Office on a variety [of] phones (iPhone, Windows Phone and Android) and tablets (iPad and Windows) – brought together by the cloud (OneDrive) to help people stay better organised and get things done with greater efficiency at work, school, home and everywhere between."

VINTAGE APPLE-1 SELLS FOR A RECORD US\$905,000

A 38-year-old working Apple-1 personal computer sold at auction for a record US\$905,000, almost double the auctioneer's high-end estimate.

The aged Apple-1 – the first pre-assembled personal computer, although it lacked such amenities as power supply, keyboard or display – was sold by auction house Bonhams in New York to The Ford Foundation, which will put it on display at the Henry Ford Museum in Michigan.


The final gavel price was US\$750,000, but including Bonhams' commission of

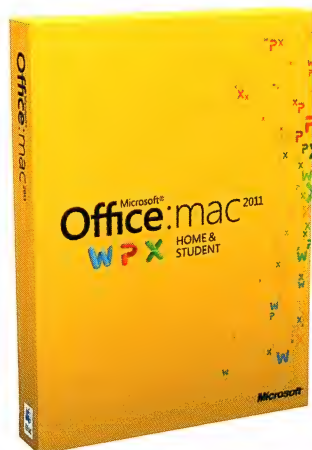
US\$175,000 and taxes, the total was US\$905,000. That easily beat the record of US\$671,000 for another working Apple-1, set in May 2013.

The Apple-1, essentially a stand-alone circuit board, was hand-built by Apple co-founder Steve Wozniak in 1976, and may have been one of the first lot of 50, according to Bonhams, which had brought in a pair of antique computer specialists to evaluate the computer. One said it was in "superb overall condition ... with no apparent modifications performed or removed".

That first batch of computers was bought from Wozniak and co-founder Steve Jobs by the owner of the Byte Shop of Mountain View, California in 1976. The computers were sold for US\$666.66 each. Approximately 200 were produced overall, but Mike Willegas, who maintains the Apple 1 Registry, has tracked only about 60 survivors. As few as 15, including the one sold Wednesday, are known to be in working condition.

This Apple-1 came with a keyboard, a power supply in a small wooden case, two vintage cassette tape decks – the storage system of its day – an old monitor and various documents.

According to the auction house, the Apple-1 had been owned by John Anderson, the founder of the AppleSiders of Cincinnati user group, which still meets. Anderson acquired the computer in 1980. 



HOT STUFF

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APPLE'S OCTOBER EVENT

APPLE ANNOUNCES NEW RETINA 5K iMAC, iPad AIR 2, iPad MINI 3 AND OS X YOSEMITE

Apple unveiled the 27in iMac with Retina display, a new Mac mini, the second-generation iPad Air and the iPad mini 3 at its Cupertino campus in October. Plus it announced OS X Yosemite was also ready to go.

iMAC WITH RETINA 5K DISPLAY

Apple showed off the latest in its desktop range with the iMac with Retina display. The new 27in Mac has an incredible 5K display, the highest resolution display in the world, packing in 14.7 million pixels at 5120 x 2880.

"Thirty years after the first Mac changed the world, the new iMac with Retina 5K display running OS X Yosemite is the most insanely great Mac we have ever made," said Apple's senior vice president of Worldwide Marketing Philip Schiller.

"With a breathtaking 14.7 million pixel display, faster CPU and graphics, Fusion Drive and Thunderbolt 2, it's the most beautiful and powerful iMac ever."

Apple says the new display is more power-efficient too, with a power reduction of up to 30 percent while providing four times as many pixels at the same brightness as the previous iMac.

The iMac with Retina 5K display ships with a 3.5GHz quad-core Intel Core i5 processor, but can be configured with a 4GHz quad-core Intel Core i7 processor that can run up to 4.4GHz with Turbo Boost.

The desktop computer comes standard with 8GB of memory and a 1TB Fusion Drive but can be configured with up to 32GB of memory, a 3TB Fusion Drive or up to 1TB SSD.

Those screwdriver-wielding destructacons at iFixit took the new iMac with Retina 5K Display apart and, on a scale out of 10, it has a repairability score of five, which is the same as its lower-resolution sibling, the non-Retina 27in iMac.

The new Retina 5K iMac has the same RAM replacement slots as the rest of



the iMac lineup, so you can upgrade the RAM yourself without having to take the entire thing apart. iFixit has a helpful guide created for the last generation that you can follow.

If you are bold enough to slice open the iMac itself, iFixit found you can still replace the hard drive and even the CPU, since it isn't soldered to the logic board. But taping it back up when you're done could prove difficult.

Already shipping, the 27in Mac starts at \$2999. Read our review on Page 58.

iPAD AIR 2 AND iPAD MINI 3

Apple has dramatically overhauled its iPad offerings in the last two years with the ultra-thin iPad Air and super-small iPad mini. So where could the company go from there? The iPad Air 2 revealed at its October media event is even slimmer than its predecessor and looks more like its cousin, the iPhone, with a new gold hue and Touch ID.

"What do you do when you make the best tablet in the world?" Apple CEO Tim Cook asked. "How do you make it better?"

You shave it down to 6.1 millimetres, 18 percent thinner than the first-gen iPad Air.



If you stack two of the new iPad Airs on top of each other, they're still thinner than the original iPad.

"iPad is a magical piece of glass that runs more than 675,000 apps specifically designed for it, and is thin and light enough that you can comfortably hold it all day; the new iPad Air 2 is packed with amazing new innovations, weighs less than 450 grams, and at just 6.1mm is the thinnest tablet in the world," said Schiller.

"iPad Air 2 has a new Retina display with anti-reflective coating, second generation 64-bit A8X chip, all-new iSight and

FaceTime HD cameras, faster Wi-Fi and LTE wireless, and includes the revolutionary Touch ID fingerprint identity sensor."

The new iPads are available now in the same colour range as the iPhone lineup (silver, space grey and gold).

The new tablet lineup all weigh less than 450 grams, offer a new anti-reflective coating on the displays that reduce glare by 56 percent and run the new A8 chip, which has increased the CPU performance by 40 percent and graphics performance by 2.5 times that of the iPad Air.

The iPad Air 2's camera has an 8MP iSight camera that captures 1080p HD video and, like the iPhone lineup, can now take time-lapse videos, slo-mo videos, panoramic pictures up to 40MP in size and Burst Mode.



The front-facing camera is now a FaceTime HD camera that lets in 81 percent more light.

The Wi-Fi capabilities of the iPad Air 2 have also seen an improvement over the previous generation with connectivity performance increased by 2.8 times and the cellular model has integrated more LTE bands for a 50 percent connection boost.

Apple also showed off the iPad mini 3, which also gets a Touch ID upgrade and new gold gloss. The iPad Air 2 and iPad mini 3 are optimised for online shopping with Apple Pay, though they can't be used for in-store purchases.

Moving quickly through the iPad mini 3, Apple chief Phil Schiller confirmed the small tablet is available in the same gold colour option as the iPad Air 2, but retains the iPad mini 2's A7 chip and 5MP iSight camera.

The iPad Air 2 with Wi-Fi is available for \$619 for the 16GB model, \$739 for the 64GB model and \$859 for the 128GB model. The iPad Air 2 with Wi-Fi + Cellular

is available for \$779 for the 16GB model, \$899 for the 64GB model and \$1019 for the 128GB model.

The iPad mini 3 with Wi-Fi is available for \$499 for the 16GB model, \$619 for the 64GB model and \$739 for the 128GB model. The iPad mini 3 with Wi-Fi + Cellular is available for \$659 for the 16GB model, \$779 for the 64GB model and \$899 for the 128GB model.

The iPad Air, iPad mini 2 and iPad mini, available in silver or space grey, are now offered at more affordable prices. The iPad Air starts at \$499 for the 16GB with Wi-Fi model, the iPad mini 2 starts at \$369 for the 16GB with Wi-Fi model, and the iPad mini starts at \$299 for the 16GB with Wi-Fi model. Read our iPad Air 2 and iPad mini 3 reviews on Page 56.

OS X YOSEMITE

Apple's newest Mac operating system, OS X Yosemite, like OS X Mavericks, is now a free upgrade on the Mac App Store.

Yosemite is a new look for the Mac, with flatter and transparent design features and will take advantage of Continuity, Apple's aim to bring iOS and OS X closer together.

Continuity allows users to switch between Mac and iOS devices and continue to work from the same place as they left off in a range of applications from Safari to Maps. Continuity also allows users to send and receive messages, and make phone calls from their Macs.

"OS X Yosemite is the most advanced version of OS X we've ever built, with a brand new design, amazing Continuity features and powerful versions of the apps you use every day," said Apple's senior vice president of Software Engineering Craig Federighi.

"OS X Yosemite ushers in the future of computing, where your Apple devices all work together seamlessly and magically. It's something only Apple can do, and it's available today," said Federighi at the October event.





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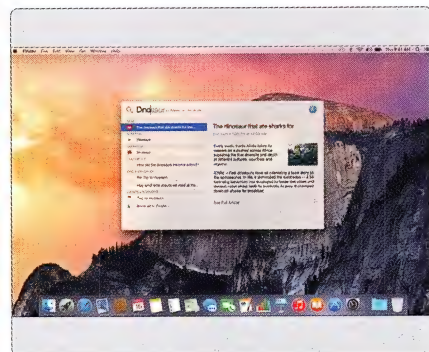
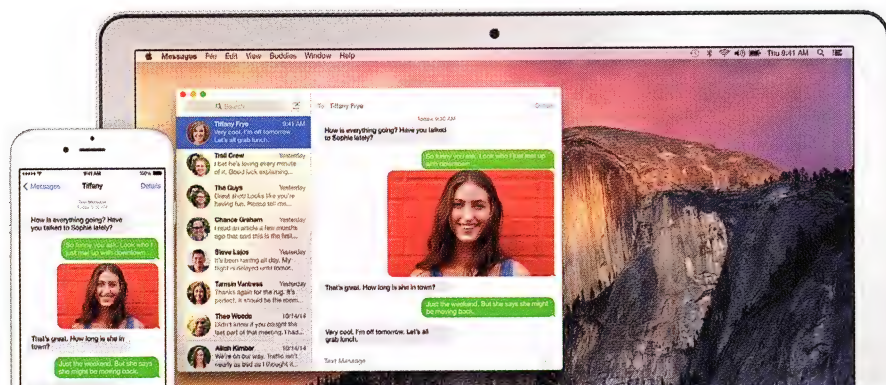


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**JB
HI-FI**



OS X Yosemite has made significant changes to Spotlight, bringing the search bar to the middle of the screen and allowing users to search the web for answers, your Mac for files and iTunes for music, as well as open apps.

A new Today view in the Notification Center allows for informative Calendar, Weather, Stocks, Reminders widgets and third-party widgets, including social media.

Safari, Mail, Messages and iTunes have also been updated in Yosemite.

MAC MINI

At the end of Apple's launch of the Apple iPad Air 2 and Apple iPad mini 3 came one more thing: an update to the Mac mini, complete with a price cut.

The three new Mac minis will now cost a minimum of \$619, scaling up to \$1249. What Apple's Phil Schiller, senior vice president of worldwide marketing, called the "world's most energy-efficient desktop"

now includes fourth-gen Intel Core processors, in addition to graphics options that include the Intel Iris and HD Graphics 5000 graphics cores. Connectivity has also improved with the addition of 802.11ac Wi-Fi and a pair of Thunderbolt 2 ports.

"People love the Mac mini. It's a great first Mac or addition to your home network, and the new Mac mini is a nice upgrade packed into an incredibly compact design," Schiller said in a statement. "With the latest CPU and graphics, faster Wi-Fi, two Thunderbolt 2 ports, OS X Yosemite, and starting at just \$619, the new Mac mini is the best value ever."

The basic specs of the mini now includes a 1.4GHz dual-core Intel Core i5, 4GB of memory, 500GB hard drive and Intel HD Graphics 5000, in addition to OS X Yosemite.

Think of the Mac mini as the Mac version of the Intel NUC, which Intel launched last spring and has since been picked up by a few other hardware manufacturers.

Both boxes are somewhat portable, but are designed to sit tucked on a desktop or shelf, out of the way. Intel upgraded its machine earlier this year, and now it's Apple's turn.

Apple appears to have prioritised graphics capabilities over processor performance in the mini update.

As Apple's spec sheet notes, however, there are other, more powerful options waiting in the wings: specifically a 2.6GHz midrange model for \$869 and a high-end model that includes a 2.8GHz chip, for \$1249. All three Mac minis use a variant of the Intel Core, although the higher-end versions pair them with the Intel Iris Graphics chip. That's a step above the Intel HD 5000 chip, and slightly less powerful than the Intel Iris Pro.

Apple's Mac mini may be a starter Mac for those who haven't leapt into the higher-end Mac space, but that doesn't mean they'll be slowpokes, either. ☞



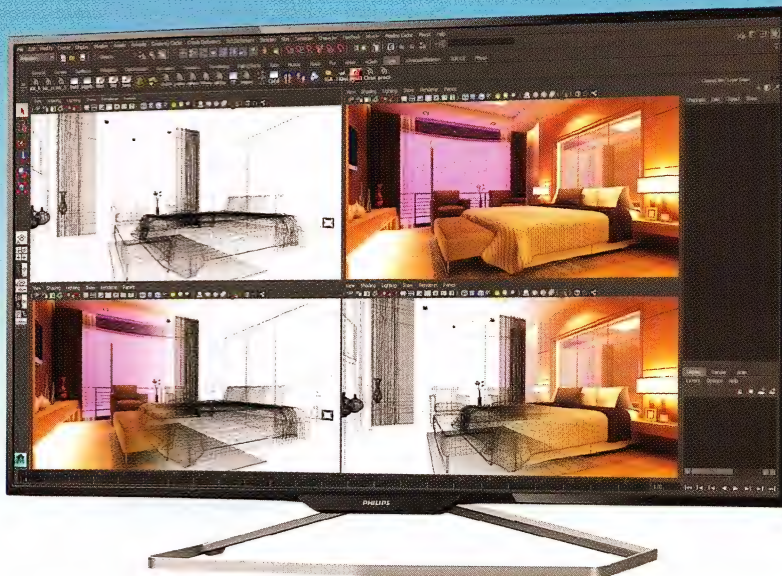
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PHILIPS

Monkey business

The winning picture from this month comes from Tawfik Elgazzar, a prolific iSnap contributor with a catalogue of engaging pictures.



Taken in the New South Wales suburb of Stanmore, Tawfik's image was the result of patience, trial and error, after seeing the artist working on the piece over a few months.

"I love that mural, which is a large one done by a female artist with the initials MS and I wanted to capture people passing by it," Tawfik says. "I framed my shot with the best part of the mural and waited for people to go past until I got a composition and a subject I was happy with."

Capturing the shot on his iPhone 4s, Tawfik opened the file in Instagram and applied a number of alterations.

"I brought it into Instagram (@tawf_da_butcher) and ran my standard style on it which is the Hefe filter, extra contrast and tilt focus."

A quick look at Tawfik's Instagram account gives an instant impression that he loves taking pictures and he believes the iPhone is a great device for such purposes.

"The advantages are numerous! Convenience, instant sharing, geotagging, application options etc. As a photographer, I use it a lot for referencing and also for street photography. It's light and I love the lens (especially now with the iPhone 6)."

When it comes to apps, Tawfik has a couple of favourites.

"I'm very minimalist when it comes to photo apps, so I've been using Hipstamatic since it came out and I still love it. I love what Instagram does with the shots I get from the native camera app. Sometimes I use the 645 PRO app, but

not often. I believe the fewer options you have, the more creative and resourceful you become."

Does Tawfik have any advice for fellow snappers?

"Step closer to your subject, use the awesome selective focus capability, frame your shot, then either place your subject or wait for them to step into your frame. Flare is sexy. Develop a particular style/look, and stick with it at least for a good while, instead of using a different filter and look every time. If you see something you think will make a good picture, take it! Chances are it won't be there when you walk past it again or the light will be different. Think more like a creative and less like a recordist."

In iSnap we're on the lookout for some of the best photographs being taken with iOS devices. Submit your favourites to macworld@macworld.com.au for your chance to be featured in the online iSnap gallery (www.macworld.com.au/isnap). Each month's winner will win a prize and appear on this page!

This month's prize is a tabMount (\$39.99) and a Shutter Remote (\$54.99) from iStabilizer. Mount your tablet to any standard tripod with the iStabilizer tabMount. The tabMount is a must for professionals and amateur filmmakers and photographers.

The Shutter Remote offers control over your device via Bluetooth. The remote allows users to capture photos, change music tracks and volume, play and pause movies on an iOS device or Mac, activate Siri and initiate navigation.

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iPAD AIR 2 & iPAD MINI 3 REVIEWS

"I DON'T RECOMMEND THAT AVERAGE iPAD AIR OWNERS UPGRADE TO THE AIR 2. BUT WHAT ABOUT THE VAST MAJORITY OF iPAD OWNERS WHO OWN OLDER MODELS? THAT'S A DIFFERENT STORY. IF YOU HAVE AN iPAD 2, 3 OR 4, THE NEW AIR 2 WILL MAKE A BIG DIFFERENCE. ITS THINNESS AND LIGHTNESS WILL BE A DRAMATIC CHANGE, AND IT WILL BE FASTER AND MORE FLUID. HOWEVER, HERE'S THE CATCH: UPGRADING TO LAST YEAR'S iPAD AIR WOULD HAVE PRETTY MUCH THE SAME EFFECT."

– Re/code's Walt Mossberg.

"THE NEW AIR'S DISPLAY ADDRESSES ONE OF MY BIGGEST COMPLAINTS ABOUT PREVIOUS iPADS: YOU CAN FINALLY SEE THE SCREEN OUTDOORS. A THINNER DISPLAY WITH AN ANTI-REFLECTIVE LAYER MEANS UNLESS THE SUN IS REALLY BEATING DOWN, THERE'S NO NEED TO PITCH A TOWEL TENT OVER THE SCREEN WHILE SITTING BY THE POOL."

– The Wall Street Journal's Joanna Stern.

"IT'S A THOROUGH REFRESH, THAT NOT ONLY MAKES IT A NICE YEAR-OVER-YEAR IMPROVEMENT OVER LAST YEAR'S iPAD AIR IN JUST ABOUT EVERY SINGLE REGARD, BUT ARGUABLY POSITIONS IT ABOVE THE iPHONES 6 AS THE TOP TIER iOS DEVICE, PERIOD."

– Daring Fireball's John Gruber.

"I said... that if all Apple did to the iPad was add Touch ID, I'd be happy – that's what they did with the iPad mini, and to be honest, I'm happy. They did much more than that to the iPad Air 2 and it's working perfectly for me. I will continue using both iPads because they both have a place in my lifestyle and workflow. At the end of the day, I still use the iPad Air for the larger screen, while I use the iPad mini when I go out for a coffee and need to be a bit more portable. That's not going to change any time soon."

– The Loop's Jim Dalrymple.

"AS FOR THE iPAD MINI 3, APPLE'S OTHER NEW TABLET, I'D ADVOCATE SKIPPING IT. UNLIKE THE AIR 2, THE NEW MINI HAS NOT BEEN UPGRADED WITH APPLE'S LATEST PROCESSOR. THIS MEANS THAT INTERNALLY, IT IS ALMOST IDENTICAL TO LAST YEAR'S iPAD MINI 2... THE PRIMARY DIFFERENCE IS THAT THE iPAD MINI 3 HAS A TOUCH ID FINGERPRINT SCANNER AND HAS ONE MORE COLOUR OPTION, GOLD. (THE 2 COMES IN JUST SILVER AND BLACK.) UNLESS YOU'RE GOING TO BE DOING A LOT OF APPLE PAY SHOPPING OR YOU'RE GAGA FOR GOLD, IT'S BEST TO SAVE THE [\$130] AND GO WITH THE MINI 2."

– The New York Times' Farhad Manjoo.

"WITH BOTH THE iPad AIR 2 AND THE iPad MINI 3, THE KILLER APP REMAINS... APPS. 675,000 OF THEM, TO BE SPECIFIC, BY FAR THE MOST EXTENSIVE, WIDE-RANGING, IMAGINATIVE AND USEFUL SELECTION AVAILABLE FOR ANY TABLET PLATFORM. THE APP STORE'S RICHES KEEP BOTH iPADS COMFORTABLY AHEAD OF EVEN THEIR NICEST ANDROID RIVALS; THE RACE SHOWS NO SIGNS OF NARROWING AS THE ONE BETWEEN ANDROID AND iPhone HAS."

– Fast Company's Harry McCracken.

"In our video test, in which an HD movie plays through the life of the battery, the Air 2 squeezed out 11 hours and 15 minutes, significantly lower than last year's Air and about an hour short of the Samsung Tab S. That said, I'm using the Wi-Fi + Cellular version, so keep in mind that the Wi-Fi-only option should get longer results."

– Engadget's Brad Molen.

"THE iPad'S HEAD ROOM FOR GROWTH IS SIGNIFICANT. BASED ON THE TYPES OF JOBS THAT ARE EXTREMELY MOBILE AND WORK DONE OUT IN THE FIELD FREQUENTLY, WE ESTIMATE THERE ARE UPWARDS OF 300 MILLION JOBS, AND GROWING, WHERE COMPUTERS ARE NOT USED TODAY BECAUSE THEY WERE IN THE SHAPE OF A NOTEBOOK OR DESKTOP. YET THIS IS WHERE THE OPPORTUNITY LIES TO BRING A COMPUTER IN THE SHAPE OF A TABLET."

– Tech.pinions' Ben Bajarin.

"IT FEELS LIKE APPLE IS SO CONTENT WITH ITS COMMANDING LEAD IN THE TABLET MARKET THAT IT'S WILLING TO LET THE iPad'S SUPERLATIVE HARDWARE SELL ITSELF INSTEAD OF FIGURING OUT NEW PLACES FOR IT TO GO. FOR BETTER OR WORSE, APPLE'S ALLOWED THE iPad TO BECOME THE GIANT iPhone ITS CRITICS HAVE ALWAYS INSISTED THAT IT IS, AND IN A WORLD WITH GIANT iPhones THAT'S A TOUGH SPOT TO BE IN."

– The Verge's Nilay Patel.

"Ultimately, the iPad Air 2's biggest enemy isn't other tablets; it's a rising interest in big-screen phones or phablets that promise to do nearly as much."

– Laptop's Mark Spoonauer.



APP GUIDE

Cool software for the iPad, iPhone & iPod touch.



**EL
GAMES**

Gree

IPHONE & IPAD FREE

It's rare to find a mobile game that's as simple, refined and free as Gree's new side-scroller, *EL*. *EL* is an effortless take on the side-scrolling flying game with beautiful artwork and a powerfully moving plotline. You play as EL, a young boy who wakes up in a mysterious, 'forgotten prison', and 'flies off in search of purpose' with the help of a magical umbrella. While *EL* may not satisfy your lust for competition or endless gameplay, it's absolutely worth a look for the simple, yet powerful storyline and distinctly indie feel. EL, other characters and foreground obstacles (birds, bombs and buildings) are represented as shadows silhouetted against ombre watercolour backdrops. It's clear that Gree spent ample time perfecting the game's visuals and music to offer an encompassing experience.



FLIC

PHOTO & VIDEO

Lifehack Labs

IPHONE \$1.99



People have been calling Flic the Tinder of photo apps, and that's the perfect description. It's a new iOS app that helps you sort through your photos and decide what stays and what gets dumped. Flic shows you what's stored in your photo collection, one photo at a time. Swipe left to send a photo to the trash or swipe right to keep it around.



GUITARTOOLKIT

MUSIC

Agile Partners

IPHONE & IPAD \$12.99



GuitarToolkit is much more than just a tuning app. It's also got a metronome, a library of two million chords, and more than 900 scales with millions of positions. Plus, an optional in-app purchase lets you create chord sheets, use an advanced metronome and more. Its flexibility and many additional features make it a great app for anyone who plays guitar.

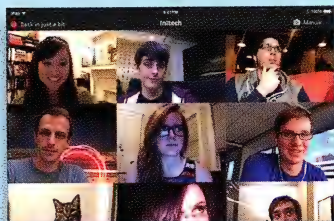


SQWIGGLE

PRODUCTIVITY

Sqwiggle

IPAD FREE



If you want your virtual office to feel a little more like your real office, this iPad video-chatting app may help. Sqwiggle aims to keep you connected to your colleagues by updating an image of each team member so you can see

when they're available. Need to talk? You can see they're available, tap on their picture and immediately shift into a live chat with them.



FOTONICA

GAMES

Santa Ragione

IPHONE & IPAD \$3.79



It's probably fair to label *Fotonica* an endless runner, much like *Canabalt* and *Temple Run* – but that familiar tag seems way too pedestrian for a game so daring, exciting and effortlessly engrossing. With a virtual reality-like design, ensuring you always have a platform beneath your feet is the main goal in *Fotonica* as you bound across gaps of endless black nothingness.

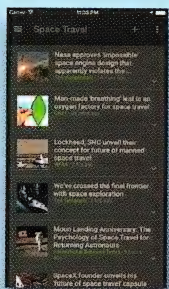


GOOGLE NEWS & WEATHER

NEWS

Google

IPHONE & IPAD FREE



Google wants to be your 21st century newspaper, no matter what device you're using. This free app for iOS includes coverage from 65,000 news organisations; gestures to categories such as Top Stories, Technology and Sports; the ability to fine-tune your layout; and the option to tap any story and experience a whole range of coverage and opinions about it.

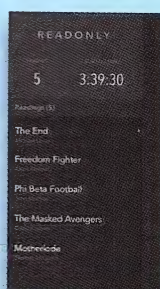


READONLY

BOOKS

Readonly

IPHONE \$3.79



Can't figure out what to read next? Readonly, a \$3.79 iPhone app, picks your next bit of reading material – essays, investigative reports, short stories, historical anecdotes and philosophical debates – based on your interests and the time you have available. It's a way to enjoy longform reading in a format that accommodates your internet-shortened attention span.

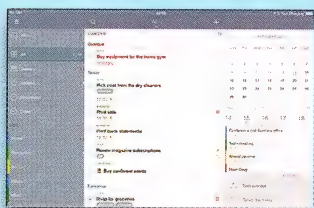


2DO

PRODUCTIVITY

Guided Ways Technologies

IPHONE & IPAD \$18.99



This high-end task manager app for iOS launched version 3.0 with more than 200 features overhauled, including a new quick add feature, the ability to view your calendar within the app (on iPad only), a native

inbox for GTD practitioners and new task editing capabilities. The app allows users to create tasks, checklists and projects with sub-tasks and assign notes, attachments and alarms to tasks.



ZEN PINBALL

GAMES

ZEN Studios

IPHONE & IPAD FREE



Zen Studios' free iOS app doesn't recreate classic Pinball tables, but rather plays host to 35 brand new ones – both original themes and tables based on *Star Wars*, Marvel Comics and others – with more added regularly. It's not the same as pulling the plunger and desperately tapping the flipper buttons, but *Zen Pinball* does an excellent job of recreating the core feel of the game, especially on a tablet.



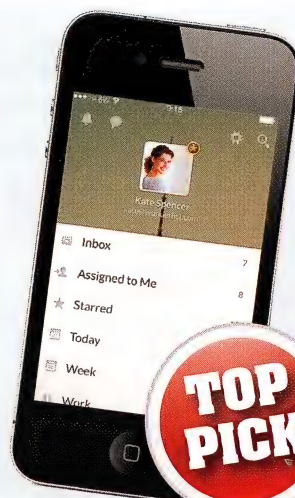
WUNDERLIST 3

PRODUCTIVITY

6 Wunderkinder

IPHONE & IPAD FREE

To-do list apps have stiff competition, but none seems to be as wildly popular as Wunderkinder's Wunderlist. Thanks to a recent update, Wunderlist's universal iOS app has Dropbox integration, a feature currently unavailable with any of the desktop applications. The iPad app bears a striking resemblance to Wunderlist for Mac, with a small status bar at the top providing up-to-the-second information on all of your tasks. The iPhone version is the most elegant of the lot. The app opens to your list view, and you tap to drill down: tapping an item in your task list takes you to the to-do list, and tapping a to-do reveals the detail view for that task. The devil is in the details view. It's here that you can add notes and files and communicate with others.



RUNNING WINDOWS ON YOUR MAC

Whether you wish to run applications for work or play games exclusive to the Microsoft PC, running Windows on your Mac is no longer the realm of IT professionals; it is a powerful solution for all OS X users.

ANTHONY CARUANA show you why and the options available.



Almost as soon as the words left Steve Jobs' lips back in June 2005 – that hell had frozen over and Macs would be using Intel processors – boffins started trying to get Windows running on a Mac. There was even a bounty being offered for the first hacker to successfully boot Windows XP on a Mac.

Now, almost a decade later we have lots of options for running Windows on our Macs.

WHY BOTHER?

Although we are working in the era of BYOD (bring your own device) there are some corporate applications that only work on Windows or don't have a Mac equivalent. For example, one of our most used enterprise applications is Microsoft Project. Although there are lots of Mac-friendly project management applications, its ubiquity in enterprises means using anything that isn't 100 percent feature and data compatible can create interoperability and collaboration challenges.

For consultants and contractors, virtualisation means you can create virtual machines so you can segregate each client's work. It also means that network settings and other client-specific configuration can be isolated so that conflicting settings aren't an issue.

For software and web developers, virtualisation means you can establish different virtual machines with different operating systems so you can test many different configurations without needing a separate computer for each one.

VIRTUALISATION VERSUS EMULATION

Back in the PowerPC days, the only way to run Windows on a Mac was to use emulation software. This meant that the software had to trick Windows into thinking the PowerPC CPU was an x86 processor. This was a very processor-intensive task. As a result, performance was poor and meant that you would only venture down this path, most likely using Microsoft's Virtual PC software, if you were truly desperate to run a Windows app on your Mac.

Virtualisation is a completely different proposition and has been a part of computing since the 1960s. In the Apple context, as Macs run with basically the same hardware as Windows systems, there's no need to go through the translation to Intel hardware.

Virtualisation allows processor capacity, memory and storage to be set aside, using software, so that the host system can run other operating systems in their own environment.

If you have a current Mac with multiple processor cores, 8GB of memory and 512GB of storage, you can set aside a processor core, 2GB of memory and 25GB of storage for a Windows system that runs on your Mac but is isolated from the other applications running. While the virtual machine is running, it's using those resources, but when it's off, you can still use the memory and processor with your OS X software.

PROTECTION

When you're running Windows on a Mac you need to install security software. There are many options with many security software vendors now offering both Mac and Windows protection in bundled packages in recognition that many people work with both platforms.

THE OPTIONS

When it comes to running Windows on your Mac you have two main options: virtualisation software or Boot Camp.

Boot Camp allows you to dual-boot your Mac. At start-up, you can choose whether to run Windows or OS X exclusively. This is done through a simple menu that appears when you turn on or restart your Mac. The advantage is that there's no software sitting between Windows and your computer's hardware. This gives you a performance advantage.

With virtualisation, you start your Mac as normal and then launch an application that creates the environment for your virtual machine.

In our view, Boot Camp is a reasonable option, but the flexibility of being able to keep running your Mac and popping over to Windows, or any other operating system without rebooting, makes virtualisation our preferred option. Even though there's a performance hit when you run Windows under virtualisation rather than using Boot Camp, modern computers are powerful enough that the effect is negligible and unlikely to seriously impact your work.

It's worth noting that you'll need to pay for a copy of Windows or whatever other operating system you choose to virtualise. Simply having the virtualisation software doesn't entitle you to a software licence for any other operating system.

PARALLELS DESKTOP 10 FOR MAC

As you'd expect from an application that's in its 10th version, Parallels lets you run Windows and just about any other operating system you can throw at it. For the purchase price of \$89.95 – you can buy it online or at many software resellers – it is far cheaper than buying a PC.

Parallels 9 will run on Macs using Yosemite, but if you're upgrading from Mavericks, then you'll need to ensure that you update Parallels – there's a free patch if you want to stick with version 9. An upgrade to version 10 will set you back about \$54.95. There's a free 14-day trial, so you can try before you commit.

It's worth noting that Parallels is often available in software bundles offered by MacHeist and others at a greatly discounted price.

Once Parallels was installed, we set up a fresh copy of Windows 8.1 and applied all of the system updates recommended by Microsoft. The initial installation, from an ISO image we had of Windows 8.1 took about half an hour. However, we don't consider this to be a useful measure as it's a one-off process.

Installed operating systems can be cloned, so you can create a basic build and then copy it before making changes.

We allocated one CPU core and just 1GB of memory out of the 8GB our MacBook Pro had available. Despite this

meagre configuration, everything ran well. In any case, if we decided to run any more demanding applications, we could increase those settings after shutting down the virtual machine – it would have been handy to have the ability to dynamically assign resources but it wasn't a big deal.

Starting Windows on our late-2013 13in MacBook Pro with Retina Display was quite fast – it took just 10 seconds to get to the login screen and a further three seconds or so to get to the desktop.

Parallels lets you run Windows in three different modes.

Full screen mode hides all traces of OS X. You can still access OS X – Mission Control makes this easy – but if someone walks past they wouldn't know you're running a Mac. Coherence Mode allows Windows applications to run and look like Mac programs. You don't see the Windows desktop at all. Windows apps run side-by-side with their Mac counterparts.

You can also run Windows, or other operating systems, in a window that floats on the OS X desktop just like any other application. If you resize the window, the screen resolution automatically adjusts so that the appearance is optimised.

When using Parallels, active applications in the virtual machine appear on the Dock, just like Mac programs when

they're running. This makes it easy to flick between your Mac and Windows programs. You can also drag and drop content onto Windows applications and there are easy options for mapping your Mac desktop and Documents folder to the Windows equivalents. That way, your Mac files can be easily accessed using Windows and vice versa.

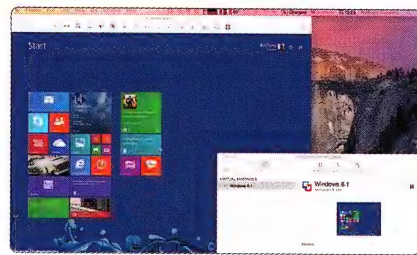
Parallels was able to take advantage of the full 2560 x 1600 resolution of our Retina Display when in full screen mode. Applications ran perfectly. We tried a number of programs and everything just worked.

We could print, listen to music, watch videos in full screen mode and use Windows as if we were running it on its own PC.

Parallels also offers a free iOS app, Parallels Access, that allows you to access your virtual machines on your iPhone or iPad.

VMWARE FUSION 7

If you've had even the slightest insight into enterprise IT systems, then you'd be well aware of VMware's reputation in delivering virtualisation platforms. For Mac users, its flagship product is Fusion. Now at Version 7, Fusion is a mature and reliable application.



Cohesion. Windows and OS X coexist with the aid of VMware Fusion 7.

Like Parallels, our Windows installation of Windows 8.1 was able to take full advantage of our MacBook Pro's Retina Display. However, Parallels was more user-friendly, as it scaled all of the icons and application tiles up so that they weren't miniscule. With Fusion, icons, fonts and other interface elements were tiny. We needed to play with display settings in order to make the system more usable.

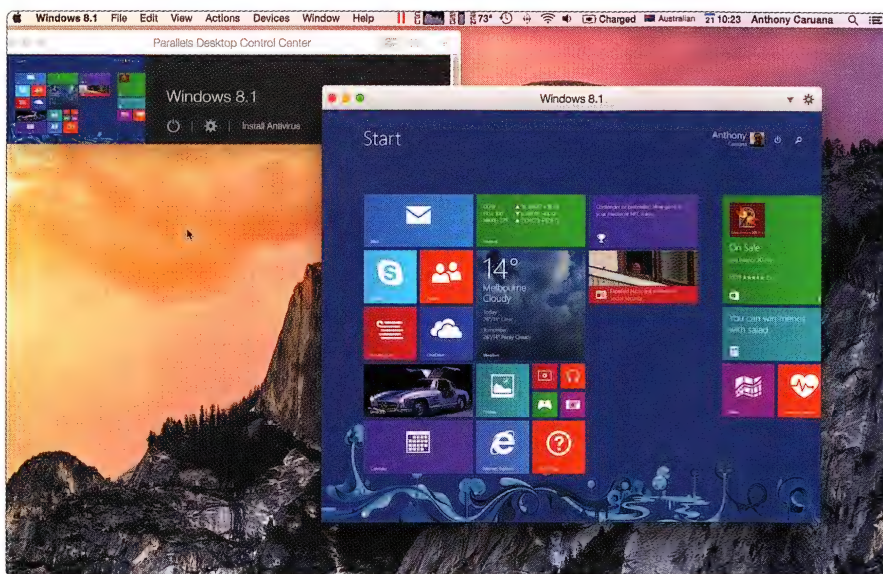
Installation of Windows 8.1 was straightforward. Using an ISO image or installation DVD, you're prompted to provide an administrator name and password, as well as the product key. You can leave the key out if you don't have one or will be using Windows on a corporate network where they have their own registration server. You can set how many processor cores and how much memory the virtual machine has access to, although you can change this later.

If you've been trying out other virtualisation platforms, VMware Fusion lets you import virtual machines from other platforms. Similarly, virtual machines created with Fusion can be converted for use with other platforms.

As you'd expect from a program in its seventh iteration, Fusion didn't have any trouble running any of the Windows applications we tried. Full screen video, music and office software – none of them skipped a beat. This was with just one processor and 1GB of memory allocated to the virtual machine.

We could also print as Fusion automatically passed print jobs from Windows to the printer we had configured in Yosemite.

Starting Windows 8.1 from scratch took about 13 seconds until the login screen



Together. Parallels Desktop 10 for Mac makes it easy to run OS X Yosemite and Windows side by side.

appeared. From there, it was another three seconds or so until the desktop was up and running.

Fusion allows you to mirror folders from your Mac to the user folders, so that your OS X Desktop, Documents and other folders are available on both systems. This makes it easy to access your files regardless of which OS you're using. Similarly, you can share any folder from your Mac to the virtual machine. And when you just need to move a file quickly, you can simply drag and drop – although this can be disabled, as can copy and paste, from Fusion's settings.

Like Parallels, Fusion can run either in full screen or windowed modes. Resizing a window results in an instant and automatic change in Windows' screen resolution so that everything looks perfect.

When using Fusion in Unity mode, the Windows desktop is completely hidden and Windows applications sit on OS X. Icons for active applications appear on the OS X Dock, so you can easily toggle between OS X and Windows programs regardless of what mode you like to use.

Similarly, if you connect a USB device, a dialogue box appears asking if you'd like the device to work with either your Mac or the virtual machine.

Other than an issue with the size of all the icons and other screen elements, there weren't any issues running Windows 8.1 on our Mac.

There's a 30-day trial, so you can try Fusion before committing your \$76.25 for a full version. An upgrade from previous versions is \$54.45.

VIRTUALBOX 4.3

While Parallels and VMware Fusion cost a little, they offer a very refined experience and make the task of running different operating systems on your Mac very easy. VirtualBox is not as refined and looks like an application that needs a bit of a facelift. Despite that, it's a useful tool that has the virtue of being free, as its development is an open source project.

Installing a new operating system was reasonably easy, although we did find it a little annoying when we were installing

Windows 8.1. VirtualBox let us create a configuration that was not going to work. That meant we needed to start again after hitting an error message.

After that little hiccup, we had a working Windows 8.1 installation. It's fair to say that VirtualBox lacks the refinement of Parallels and Fusion, but that doesn't mean it's not a viable alternative. For example, when we attempted to adjust the resolution to get the most from MacBook Pro's Retina Display we found that we couldn't see everything on the Windows desktop unless we limited the resolution to just 1280 x 800. Also, many of the Mac elements of the VirtualBox application looked rather dated and reflected its history as an application that's been ported from other platforms to run on the Mac.

Drag and Drop between OS X and the VirtualBox window, to easily copy files into the Windows 8.1 virtual machine, was disabled by default but easily enabled. We could set it to be bidirectional or only one way.

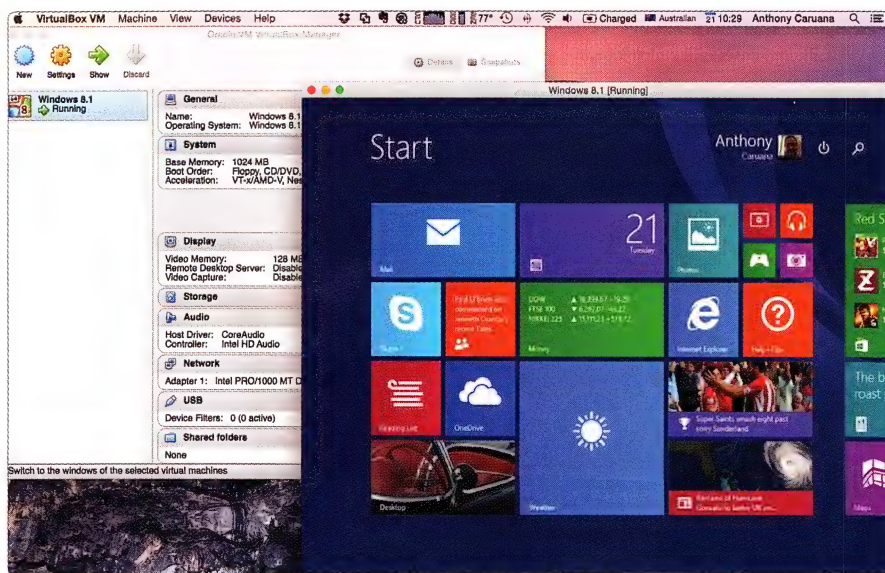
It was possible to map our personal Mac folders to the Windows virtual machine, so we could easily access files across the two operating systems. The process required more steps than Fusion and Parallels, where that process was largely automated with a single checkbox.

Performance was reasonable. Starting Windows took just 13 seconds to get to the login screen and a further five seconds until we had a working Windows desktop. All the applications we tested started promptly and we were rarely kept waiting although it did feel more sluggish than Fusion or Parallels. We only allocated 1GB of memory and one processor core to Windows.

VirtualBox offers three operating modes: Fullscreen, Scaled and Seamless. While running in Fullscreen mode, VirtualBox displays a small toolbar at the bottom of the screen that makes it easy to switch modes, toggle drag and drop settings, and alter USB device settings. This was a handy extra that the other tools we looked at lacked, and it made tweaking our virtual machine easy.

Scaled mode worked well for when we needed to have both Windows and OS X visible at the same time, although the screen resolution didn't always adjust automatically. As a result, there were times we could only access the entire Windows desktop by using scroll bars.

Seamless mode required installation of Guest Additions – a suite of extras that delivers better video support, improved mouse integration and automated logins. However, Seamless mode didn't work as

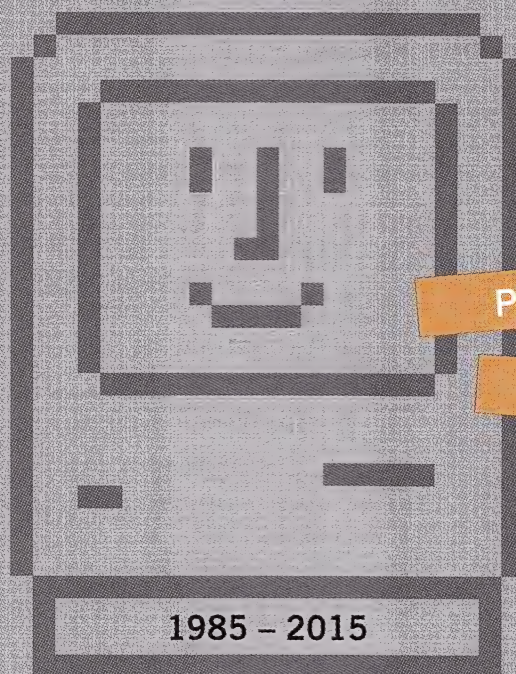


Free option. VirtualBox 4.3 is a free, open source virtualisation software.

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we expected with the Windows desktop not disappearing completely.

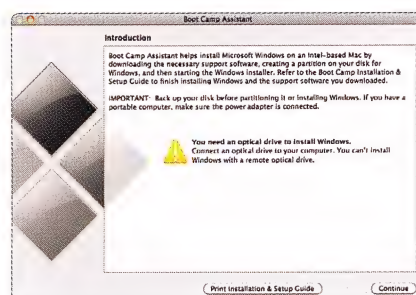
Despite some shortcomings, VirtualBox passes the 'good enough' test in our view. Sure, it lacks some of the refinement of its commercial competitors, but it lets you install a guest operating system and run applications in a virtualised environment. Most of the features you expect such as a shared clipboard, folder mapping and drag and drop are there, and performance is reasonable.

BOOT CAMP

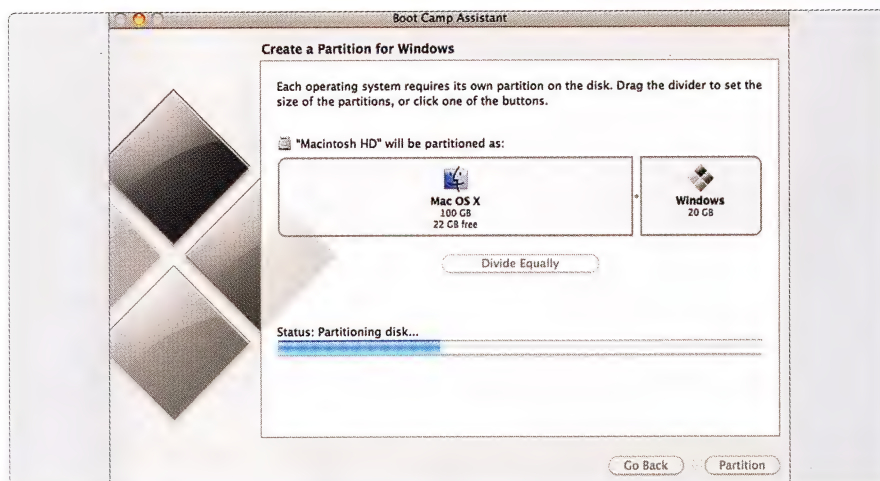
Boot Camp is Apple's solution to running Windows on your Mac. Boot Camp isn't virtualisation. With Boot Camp, you set aside a portion of your hard drive that is partitioned for Windows' exclusive use. It's worth noting that, once you create a Boot Camp partition, changing its size is not supported by Apple, although there are third-party tools available that can increase or decrease the size.

Setting up Boot Camp is relatively easy, as Apple has created the Boot Camp Assistant. This program partitions your hard drive in a non-destructive way, so that your OS X setup is preserved. However, partitioning a hard drive is a reasonably risky task, so we'd recommend backing up your system, and testing that backup, before proceeding.

As well as partitioning your hard drive, the Boot Camp Assistant downloads a bunch of drivers and other software you'll need to get the most out of the Windows installation. In our experience, Boot Camp has made our Macs into some of the best Windows systems we've owned. As Apple



Beginning the camp. Boot Camp Assistant will walk you through the initial setup process.



Creating the divide. Here you can decide how much hard drive space to allocate to your Windows partition.

has optimised its drivers and support software and omitted much of the extra software PC vendors bundle with their systems, we ended up with an uncluttered Windows installation.

Once you've installed Windows, you get an option at start-up to boot your Mac with either OS X or Windows.

Performance was excellent. Boot up and everyday actions were executed quickly. This is because there's no need to allocate any processor or memory resources. As Windows is running natively on the Mac, without any virtualisation software, it has direct access to all of your Mac's hardware.

The downside to this approach is that you can only run Windows or OS X – you can't have them running side-by-side. That can make the task of sharing files a pain, although, by using cloud storage services, you can get around that reasonably easily.

If you feel that there may be times when accessing Windows would be handy without restarting your Mac, there is a relatively easy workaround. Both Parallels and Fusion are able to open Boot Camp partitions and launch Windows in a virtual machine.

CHOOSING THE BEST OPTION

So, how do you choose the best option for the times you need to run Windows?

We're going to suggest that there are three main situations for using Windows when you're mainly a Mac user:

- you have a few Windows applications you need to use reasonably often
- you have just one or two Windows applications you need to use occasionally, or


- you occasionally need to run a Windows program independently of your Mac or need optimal performance.

If you need to use Windows often but it's a hassle to restart your computer, then we suggest either Parallels or VMware Fusion. Both programs make creating and running virtual machines easy, perform well and allow easy interoperability between your Mac and Windows.

Choosing between the two is a bit of a coin toss in our view. Depending on where each product is in its release cycle, you'll find marginal performance and functional advantages with one or the other. For example, there was a time when Fusion offered far better video performance, but Parallels caught up and bypassed the latter only to see Fusion leapfrog it in some other way.

We'd suggest Mac users will be happy with either.

If your needs are modest and you only need to use Windows occasionally, or perhaps to only run a limited number of applications, then VirtualBox will fit the bill. Although it's less refined than its commercial competitors, this open source application passes the 'good enough' test.

Similarly, if you only use Windows occasionally and can live with the inconvenience of a reboot when you need to switch to Windows, then Boot Camp will fit the bill. Also, if the software you plan to run needs lots of memory or is heavily processor dependent then Boot Camp offers the strongest performance as it works directly with your Mac's hardware. 



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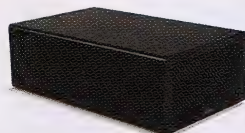


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MAC GEMS

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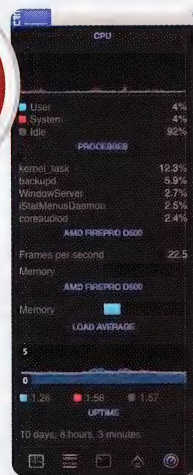


ISTAT MENUS 5

UTILITIES

Bjango

FROM US\$16; UPGRADE FROM US\$9.99



With the fifth version of its popular iStat Menus app, Bjango has improved on nearly every aspect of the multitasking menu bar monitor, bringing the interface in line with Mavericks and Yosemite. While it's wonderful to look at, iStat 5's improvements are more than skin deep. Dive into its menus and you'll find an array of new performance statistics, including advanced multi-core CPU and GPU monitoring, improved battery tracking and more control over network status. There is also a greater emphasis on memory usage. Whether or not you want to busy up your menu bar with iStat's numerous icons, there's no debating its usefulness. Its bevy of monitoring and diagnostic menus will keep you apprised of every little thing going on. Available via bjango.com.

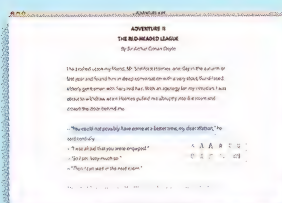


BYWORD

PRODUCTIVITY

MetaClassy

\$12.99



MetaClassy's Byword is a Markdown editor with a simple user interface that aims to create a distraction-free writing environment. Byword supports footnotes, tables, cross-references, PDF and HTML document exports and can publish

to WordPress, Tumblr, Blogger, Scriptogram and Evernote. The app's latest release introduces better compatibility with OS X Yosemite – and comes with support for Apple's brand new iCloud Drive.



GRIDS

SOCIAL NETWORKING

ThinkTime Creations

\$2.49



ThinkTime Creations' Grids is an Instagram client design to fit right at home on your Mac. The app provides a great-looking way to browse through the popular social network, and helps you explore its every nook and cranny with an

intuitive interface. Users can bookmark, like, comment, follow and search people and tags, and receive notifications when new feeds are available.

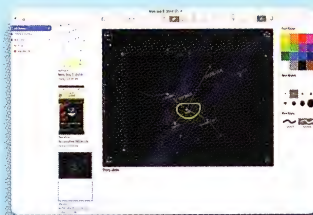


NOTABILITY

PRODUCTIVITY

Ginger Labs

\$12.99



Notability is a note-taking app that allows users to organise notes into subjects, which get assigned a colour code, drag-and-drop images and save their notes to iCloud or third-party services. Right now the price is

a lot to ask for a note-taking app when there are good, free alternatives. If you have been using it considerably on mobile, it makes sense to make the leap and get the desktop version.

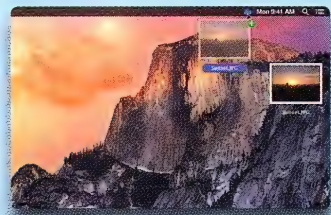


CLOUDAPP

PRODUCTIVITY

Linebreak

FREE



Aluminum.io's CloudApp makes quick work of sharing your files with the world at large by uploading them to the cloud and providing you with a handy URL that can be sent to friends and colleagues. The

app's latest version includes better support for OS X Yosemite, including a brand-new sharing extension, as well as an improved screen-recording feature that can produce silky-smooth 60fps videos.



AFFINITY DESIGNER

GRAPHICS & DESIGN

Serif Labs
\$64.99



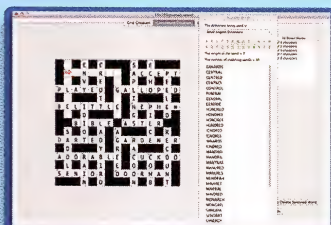
Serif's Affinity Designer is a vector graphics editor designed with professionals in mind. The app takes full advantage of the many technologies that come with OS X, from OpenGL to Core Graphics, to deliver a design experience that is as Mac-like as they come – including the ability to zoom things to a whopping 1,000,000 percent factor.



CROSSWORD EDITOR

PRODUCTIVITY

Jim Graham
\$18.99



Ever wished you could create your own crossword puzzles? Jim Graham's Crossword Editor can turn your dream into a reality. The app supports a number of common crossword formats, which can range from 8 x 8 to 31 x 31 in size, and can automatically lay out the puzzles for you, starting from a list of words and clues.



EARTH 3D

ENTERTAINMENT

3Planesoft
\$2.49



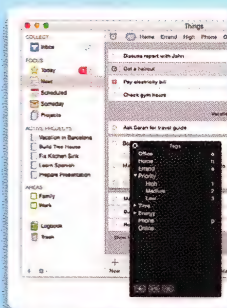
3Planesoft's Earth 3D gives you a beautiful three-dimensional look at the Pale Blue Dot, with a unique interface that highlights humankind's most beautiful and prominent architectural works. The app supports multiple monitors, and can even display a global weather map, although that will set you back an extra \$2.49, alongside a couple of other in-app-purchases.



THINGS

PRODUCTIVITY

Cultured Code
\$64.99



Cultured Code's Things is a great way to organise your life with a simple and intuitive interface that keeps all your tasks and to-dos at bay. The latest version of the app introduces several OS X Yosemite-centric features, including a handy Today widget, share and action extensions, and support for Handoff.

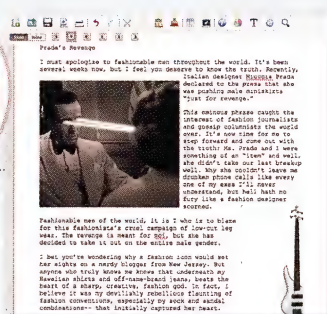


DOCUMENT WRITER

BUSINESS

Xiong Feng
\$12.99

Good, affordable, lightweight word processors are rare finds on the App Store, and that's what makes Document Writer such a compelling product. It's not going to rival the full product of Microsoft Word, but it's certainly a step up from Open Office and even may get some defectors from Google Docs. Document Writer has a fairly intuitive interface, with tools that you've come to expect: paste, cut, undo, redo, print, save, text size, colour, insert image, insert boxes, find, URL creation and numerous formatting buttons. Changing from normal spacing to double is a breeze, and creating numbered lists, columns and other more particular formatting demands are equally easy. Those who need a tuned-down, no frills word processor could do a lot worse than Document Writer.



Blackmagic Pocket Cinema Camera

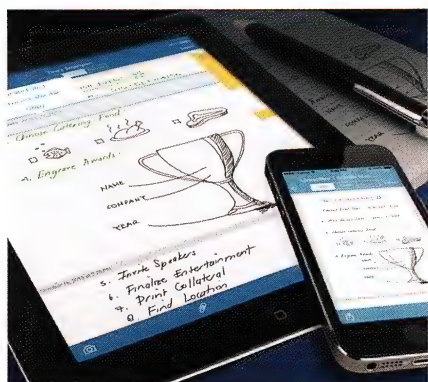
Introducing the pocket-sized Super 16 digital film camera that's small enough to keep with you at all times, so you'll never miss a shot! Get true digital film images, with feature film style 13 stops of dynamic range, Super 16 sensor size, high quality lossless CinemaDNG RAW and Apple ProRes recording and the flexibility of an active Micro Four Thirds lens mount, all packed into an incredibly tiny size!

Blackmagic / \$1,239 / www.blackmagicdesign.com/au/products/blackmagicpocketcinemacamera



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GIZMOS
GOODIES**

XMAS GIFT GUIDE



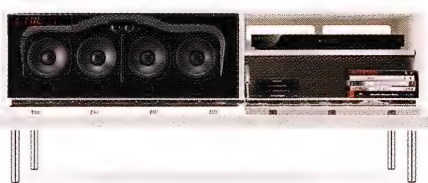
Livescribe 3 smartpen

The Livescribe 3 smartpen, once paired with a smartphone or tablet, captures everything you write or draw. Featuring a Swiss-made tungsten-carbide ballpoint ink cartridge, the Livescribe 3 smartpen integrates an infrared camera, ARM processor, Bluetooth Smart chipset, flash memory and 14-hour lithium ion battery to transcribe the pen's movement to a mobile device. Using the Livescribe+ mobile app, your notes can be organised, tagged, searched for and converted to text.

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Livescribe

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Geneva Sound System Model XXL

Geneva Sound System Model XXL is a seven-speaker surround sound audio system in one cabinet with support for AirPlay, Bluetooth A2DP, FM and DAB radio. The XXL has several HDMI and digital audio inputs, an 8in subwoofer, seven-channel amplifier and, according to Geneva, by using Embracing Sound HD technology, the Model XXL is ideal for music, movie soundtracks and TV audio.

\$3499

Geneva Sound System

www.genevalab.com



Parallels Desktop 10

Parallels Desktop 10 for Mac allows users to run Windows and a number of operating systems on their Mac, alongside their current operating system. Desktop 10 brings support for OS X Yosemite to Windows and Windows applications, supporting iCloud Drive and Photo Library, the ability to call with iPhone, iMessages and SMS text sharing from Windows, and control of virtual machines from Spotlight preview and Finder QuickLook.

\$54.95 (upgrade); \$89.95

Parallels

www.parallels.com/au



NewerTech miniStack MAX

The NewerTech miniStack MAX is a multi-featured storage solution with built-in hard drive, Blu-ray/CD/DVD read/write optical drive, SD card reader, FireWire 800 ports and USB 3.0 and 2.0 ports. Available in storage limits up to 5TB, the miniStack MAX is enclosed in an aluminium case with the same width and depth (19.7 x 19.7cm) as Apple's Mac mini.

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STM drifter medium laptop backpack

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STM
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Logitech Bluetooth Multi-Device Keyboard K480

The K480 is a portable keyboard featuring an Easy-Switch dial that allows users to switch between three connected Bluetooth devices, whether they are a Windows, Mac or Chrome computer, or an Android or iOS tablet or smartphone. Measuring 2 x 29.9 x 19.5cm and weighing 820g, the keyboard features a two-year battery life and is available in two colours, white and black.

\$69.95
Logitech
www.logitech.com/en-au



Philips 40in 4K UHD monitor

The Philips monitor features a 40in, Ultra HD display with a 4K-resolution (3840 x 2160) panel at 60Hz and a 5000:1 native contrast ratio. The monitor offers wide viewing angles thanks to its VA LED display, a range of connectivity options via a USB 3.0 hub and VGA, DisplayPort, mini DisplayPort, HDMI and MHL-HDMI ports and audio from two 7W speakers. The 4K monitor is backed by a four-year warranty.

Philips / \$1099 / www.philipsmonitors.com.au



Nocs NS500 Aluminum

The Nocs NS500 earphones are housed in sandblasted aluminium with a chamfered finish and powered by a 8mm dynamic speaker. The earphones ship in black, silver, gold or grey colour options, are accompanied by four different-sized ear tips and include a flat, tangle-free 1.2m cable with a three-button remote and microphone.

US\$89.95 + shipping

Nocs

www.nocs.se



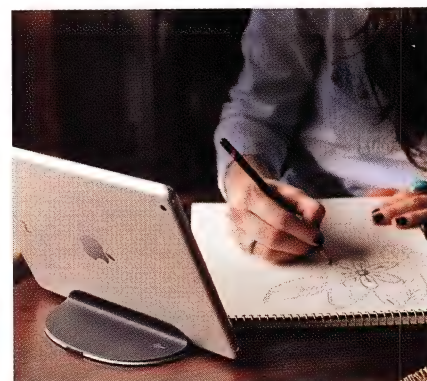
D-Link Wireless AC1200 Dual Band Gigabit Range Extender

The D-Link AC1200 range extender improves the coverage and signal strength of any wireless network using concurrent dual-band 802.11ac wireless connectivity via the 2.4GHz and 5GHz wireless bands. The SharePort Mobile app allows users to connect a USB storage device to the extender to share documents, movies, pictures and music with mobile devices, the living room TV, etc.

\$149.95

D-Link

www.dlink.com.au



Ten One Design Magnus Air

The Magnus Air is a desktop stand for the latest-generation full-size iPad. It features a rubberised-magnetic grip, so your tablet won't slip, and it lets you display your iPad in portrait or landscape orientation. It's a nice companion for a wireless keyboard, or you can simply use it to prop up your iPad for video or photo viewing.

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Ten One Design

www.tenonedesign.com



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Available: JB Hi-Fi, Harvey Norman, Myer, David Jones and speciality hi-fi stores. Fits anywhere. Rocks any world soloist size. Symphony sound. No other wireless speaker packs so much hi-fi sound into such a compact design. Spiralling highs, thundering lows and deep, crystal clear sound at any volume. Stream all the music on earth to any room.

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Wacom Intuos Creative Stylus 2

Create naturally with the true professional stylus from Wacom. The Intuos Creative Stylus 2 has an improved thinner pen tip (2.9mm) that allows for increased visibility and intricate detail. For a limited time you can 'Boost your Ideas' with the included digital gift pack, valued at over \$50, which includes an Autodesk Sketchbook 90-day pro membership as well as a 30-day premium membership to lynda.com.

\$99

Wacom

boostyourideas.com.au



8Ware 6-Port Desktop USB Charging Station

The 8Ware 6-Port Desktop USB Charging Station is here to solve all of your charging headaches. It offers three USB charging ports capable of up to 2.4A output and another three ports with 1.0A output. Capable of charging via all six ports simultaneously, it will handle all of the iPhones, iPads and other USB-powered devices you can throw at it, whether in the office or at home.

\$54.95

Anyware

www.estore.com.au



Harman/Kardon Nova Stereo Streaming System

The Harman/Kardon Nova Stereo System has a minimalistic aesthetic at 165 x 160 x 114mm. In two compact translucent spherical speakers, available in black or white, Harman provides 2.5in drivers and 1.25in tweeters. The computer speakers have a frequency response of 70Hz to 20Hz, and Bluetooth, NFC and 3.5mm auxiliary connectivity options.

\$399

Harman/Kardon

www.ehifi.com.au



RØDE NT-USB

The RØDE NT-USB is a studio-grade microphone with a digital USB interface compatible with Mac, Windows and iPad. The NT-USB features a 3.5mm zero-latency stereo headphone monitoring jack, dials to control monitoring levels and mix between the computer and microphone input. The NT-USB can be used for recording musical performances, podcasts, voiceovers and more.

\$169

RØDE

www.rodemic.com



Lenmar ChugPlug Portable Power Pack for MacBooks

Connecting to the MacBook's MagSafe Power Adapter, the ChugPlug will boost an 11in MacBook Air's battery by up to four additional hours and a 13in MacBook Air and 13in MacBook Pro's batteries by up to three hours. The battery pack measures 7.4 x 22 x 2.8cm, making it a slim portable companion for a MacBook and, weighing under 500g, no hindrance when packing a travel bag. Available at Harvey Norman, Next Byte, JR Duty Free and Dick Smith stores nationwide.

\$199 / Lenmar / www.lenmar.com



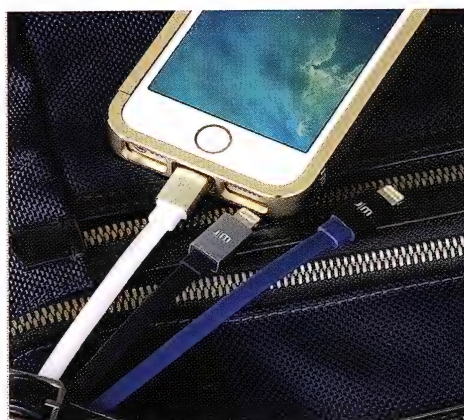
Elipson Lenny

The Lenny is a foghorn shaped portable speaker resulting from the collaboration between audio maker Elipson and the interior design team at Habitat. The speaker offers Bluetooth connectivity, an eight-hour battery and is designed to withstand water splashes. The Lenny, weighing in at 3kg, features two 2.5in loudspeakers and a 4in passive loudspeaker.

\$599

Audio Dynamics

www.audiodynamics.com.au



Just Mobile AluCable Flat

The AluCable Flat from Just Mobile is a 1.2m USB to Lightning cable for syncing and charging iPhone, iPad and iPod devices. The Apple-certified cable features connectors encased in aluminium and is available in three colour combinations. The connectors match the iPhone 5s colour range (silver, space grey and gold), while the cables are black, blue and white.

US\$19.95 + shipping

Just Mobile

www.just-mobile.com



Twelve South Rutledge BookBook

The US\$99 Rutledge BookBook is perhaps the ultimate hipster Mac accessory. What appears to be a leather-bound book is actually a beautiful – even rustic-looking – MacBook case with a padded interior. It's designed to make your expensive computer look instead like a really expensive ancient manuscript, while protecting the MacBook from bumps and scratches.

US\$99 + shipping

Twelve South

twelvesouth.com



Adonit Jot Touch with PixelPoint

Adonit has just launched a pressure sensitive stylus that may just be what digital artists have been craving. The updated stylus boasts a 3.8mm tip thanks to PixelPoint technology, which Adonit believes will provide 90km of drawing distance, and 2048 levels of pressure sensitivity. Adonit's collaboration with Adobe means the Jot Touch with PixelPoint features an Adobe Creative Cloud connection.

\$149

Adonit
www.adonit.net



LaCie Fuel

The \$249 LaCie Fuel adds 1TB of storage to your iGadget by providing what's essentially a Wi-Fi NAS for your iOS devices. Specifically, it provides up to five devices with easy access to up to 500 movies, 160,000 songs or 190,000 photos. The Fuel can even work if you're off the grid, since it generates its own Wi-Fi network and includes a 10-hour built-in battery.

\$249

LaCie
www.lacie.com/au



Bowers & Wilkins Panorama 2

Awarded European Home Theatre Soundbar 2013-2014 by the European Imaging and Sound Association (EISA), the Bowers & Wilkins Panorama 2 soundbar features three HDMI inputs, an ARC-compatible HDMI output and nine drive units, powered by six class D amplifiers, designed to disperse sound to a wide listening area. The soundbar can be controlled via a dimming, proximity-sensitive display or your TV remote.

\$2499

Bowers & Wilkins
www.bowers-wilkins.com

House of Marley Liberate Bluetooth

Looking for a small portable speaker? This may be the solution. Housed in a dark or light grey fabric covering with a two-layer grille design and a natural bamboo wood rear panel, the portable House of Marley Liberate Bluetooth speaker features four 1in speakers, a built-in microphone, Bluetooth connectivity, 3.5mm aux-in port and an eight-hour rechargeable battery.

\$179.95 / House of Marley / www.thehouseofmarley.com.au





The low-end theory

Apple would do better to price its products more evenly according to one writer.

When Apple announced the new lineup of iPads and Mac minis in October, I noticed a disturbing trend. We're used to Apple making the best products in every category and charging appropriately for them. When people complain to me that you can get Windows computers for less, I point out that you can't get comparable Windows computers for less.


But if you look across Apple's product lineup, many of the low-end offerings really stand out – and not in a good way. Many of them come across as unnecessarily hobbled devices, and while there may be a few instances where they'd be serviceable, I can't see myself recommending any of them. In fact, they remind me of Road Apples, devices Apple used to sell back in the 1990s that were underpowered, not upgradeable and soon terminated.

SKewed LINEUPS

The base 21in iMac, for example, features a MacBook Air-calibre 1.4GHz processor and an Air-calibre videocard without the speed benefit of the Air's flash drive. These specifications may be OK, except for the fact that the iMac lineup is so lopsided. The difference is much more marked between the base 21in iMac and the midrange model than between the midrange and high end, despite the fact that the price difference is the same.

The base Mac mini features the same processor as the base iMac and only 4GB of RAM. The next model up almost doubles the processor clock speed, and does double the RAM and hard drive space for \$250. The high-end model only gives you 0.2GHz more in clock speed and a Fusion Drive instead of a standard drive, but will set you back an additional \$380.

Then there's the lineup of new iPhones and iPads. When Apple announced the new iPhones would ship in 16, 64 and 128GB configurations, I thought it may have been a temporary fluke. But now the 2014 iPads ship in the same configurations. As someone who owned the limited-run 4GB original



<p>NEW</p> <p>1.4GHz Mac mini</p> <p>1.4GHz dual-core Intel Core i5 4GB memory 500GB hard drive* Intel HD Graphics 5000 OS X Yosemite</p> <p>Available to ship: Within 24 hours Free Shipping</p> <p>\$569.00</p> <p><small>*Includes CD-R/DVD burner, A1374 Adaptor 0% interest for 6 months</small></p> <p>Select</p>	<p>NEW</p> <p>2.6GHz Mac mini</p> <p>2.6GHz dual-core Intel Core i5 8GB memory 1TB hard drive* Intel Iris Graphics OS X Yosemite</p> <p>Available to ship: Within 24 hours Free Shipping</p> <p>\$869.00</p> <p><small>*Includes CD-R/DVD burner, A1374 Adaptor 0% interest for 6 months</small></p> <p>Select</p>	<p>NEW</p> <p>2.8GHz Mac mini</p> <p>2.8GHz dual-core Intel Core i5 8GB memory 1TB Fusion Drive* Intel Iris Graphics OS X Yosemite</p> <p>Available to ship: Within 24 hours Free Shipping</p> <p>\$1,249.00</p> <p><small>*Includes CD-R/DVD burner, A1374 Adaptor 0% interest for 6 months</small></p> <p>Select</p>
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iPhone for two years, I know a thing or two about managing storage space, but a 16GB device in 2014 should really be offered at a discount.

In the past I've gone so far as to defend the 8GB iPhone 5c because, believe it or not, there are some people out there who mostly want the 'Phone' part and not the 'i' part. Personally, I'd rather squirt Sriracha sauce into my ears than talk on the phone – I was 24 hours into enjoying my iPhone 6 before I noticed the phone part had not actually activated yet. But I know these people who want their smartphone most for the phone part actually exist.

Still, while 8GB may once have been acceptable if you were only interested in downloading a handful of apps, now that iOS updates want upwards of 5.8GB (what iOS 8 wanted on my iPhone 5s to update over the air), 16GB is a stretch and 8GB is a snapped rubber band. In fact, storage space may be the leading reason why iOS 8 has had a slower adoption rate than previous releases.

Storage isn't the only uneven price-for-feature ratio in the iPad line. The base iPad mini will run iOS 8, but with an A5 chip and 512MB of RAM, it doesn't run it very well. The next model, the iPad mini 2, has an A7 chip, 1GB of RAM and a Retina display for just \$70 more. The difference between the iPad mini 2 and iPad mini 3 – Touch ID and an additional colour option – is not nearly as significant, but it'll cost you \$130.

PUSHING YOU UP

Are you sensing a pattern here? Because I am. That's my mutant ability: sensing patterns that I'm deliberately trying to point out. In most of Apple's lineups, the difference between the low-end model and midrange model is huge while the difference between the midrange and the top end is much smaller. When it was just the iMac I shrugged. Not literally, of course. I mean, I've been working from home for a few years now and I already talk to

myself. If I start shrugging what's next? Interpretive dance? That's going to look weird through my office window.

But now that it's almost all of Apple's lineup it's starting to look... unseemly. I'm not completely naïve, I do understand that Apple's looking to make a profit here and, hey, that's what capitalism is all about.

But does it seem right that Apple – this is Apple we're talking about, remember – is selling devices you wouldn't recommend? Because these are not great machines. These devices are only viable options in very limited circumstances. And that's not Apple's usual modus operandi. Apple makes premium devices that appeal to the largest portion of the market possible, and gives you software updates for free. What good is a free software update if it ruins your user experience?

The problem is not so much that the low-end devices are underpowered. If Apple wanted to offer very cheap low-end machines, that would be fine. The

problem is the huge gap between the low-end and the midrange. This seems like a gimmick to me, a trick designed to allow Apple to tout a low entry-level price and then drive everyone to buy the midrange device.

There are some outliers. The iPad mini 3 is the one device at the top of a lineup that doesn't seem worth the money. Meanwhile, the low-end MacBook Air is a terrific value. Across the entire set of product lineups there is plenty of value, but it's almost all at the middle and high end of each product line.

Tim Cook has said, "Our North Star is always on making the best products." In general, I think Apple does. Personally, I'd rather have even these half-hearted low-end products than those of its competitors because of Apple's focus on hardware and software integration and its superior ecosystem.

But are these low-end offerings the best products Apple could offer at these price points? I don't think so. ☒



iPad mini 3

Wi-Fi:

16GB A\$499 RRP

64GB A\$619 RRP

128GB A\$739 RRP

Wi-Fi + Cellular:

16GB A\$659 RRP

64GB A\$779 RRP

128GB A\$899 RRP



iPad mini 2

Wi-Fi:

16GB A\$369 RRP

32GB A\$429 RRP

Wi-Fi + Cellular:

16GB A\$529 RRP

32GB A\$589 RRP



iPad mini

Wi-Fi:

16GB A\$299 RRP

Wi-Fi + Cellular:

16GB A\$459 RRP



GETTING READY FOR APPLE PAY

BY ANTHONY CARUANA

Apple Pay was announced at the recent Apple event as one of the new features that takes advantage of the NFC (near field communication) capability and security features built into the new iPhone 6 and iPhone 6 Plus.

But what exactly is Apple Pay and what will it mean for your business?

Unlike the US, Australian retailers have embraced the use of PayWave and other contactless payment systems. Most of us are well-accustomed to pulling a card out of our wallets and tapping on a payment terminal to complete small transactions.

Apple Pay provides credit card providers with a way of integrating the contactless payment system with the NFC radio in the phone through software. Passbook stores the credit card information and the integration of Touch ID means a thief will not be able to use your phone to make payments. There's also a new chip called Secure Element that stores encrypted payment information.

In order for the system to work in the United States, Apple has negotiated with several major credit card providers so that their cards will work with Apple's solution.

Apple's approach has been to work with the largest banks first in order to cover as many customers as they possibly can. We'd expect smaller credit card providers and banks to come on board over time.

For Australian businesses, we'd expect Apple to follow a similar pattern with the big four banks to come online with Apple Pay first and smaller credit card providers to follow suit.

If you're already banking with one of the big banks, chances are that the contactless terminals you've already installed will work perfectly. If your business hasn't installed contactless EFTPOS machines yet, we'd hold off in the hope that banks will discount those services when Apple Pay comes online here.

The other, less discussed, element of Apple Pay is how it works with shopping apps. If your business has an app used for selling products to customers, it will be able to work with Apple Pay through an API (Application Programming Interface).

Rather than having customers enter and store credit card information in your systems, they'll be able to nominate a

credit card in Passbook to use with Apple Pay. As the process is tightly integrated, it will simplify things for customers, as they no longer need to enter credit card details or sign into PayPal.

If your business uses an app to sell products and services, it's time to get your Apple Pay integration onto your development roadmap. That way, when Apple Pay is available to Australian customers, you'll be ready to leap straight in.

It's worth noting that some retailers in the US are resisting the shift to Apple Pay and Google Wallet – Google's contactless electronic wallet. This seems to be because they are looking to establish their own payment systems. Whether they succeed or not remains to be seen.

So, what will you need to do in order to be ready for Apple Pay?

- If you haven't already, investigate installing contactless terminals on your EFTPOS machines.
- Keep an eye on your bank and listen out for any hints in the news as to the local roll-out of Apple Pay.
- If your business uses an app to sell products, look at integrating Apple Pay. If you sell in the US market, you may get some rapid return on that investment.

HOW WEARABLES AND WELLNESS PROGRAMS ARE TRANSFORMING THE WORKPLACE

BY RYAN FAAS

Employee wellness programs are one of the driving forces behind wearables in the workplace today. Employers and insurers are seeing increased value in employee wellness. Today these programs are largely focused on basic metrics like weight loss and management, step counting and smoking cessation.

Additional health-related metrics as well as other progressive views about what constitute wellness, however, are likely to be added over the coming years and they may significantly influence the design and function of the workplace.

One of the most significant health metrics that will be tracked by the Apple Watch when it launches next year is something incredibly simple – standing.

Put simply, human bodies weren't designed to sit for long periods of time

without a break. This can lead to a range of different health and fitness issues for those of us who spend the majority of the workday sitting in front of a computer.

- Poor posture can lead to a range of back, neck and shoulder problems or significantly exacerbate existing issues and injuries.
- Workspaces with poor ergonomic design can lead to neck and eye strain as well as to repetitive stress injuries that impact the hands, wrists and forearms – the most well known of these being carpal tunnel syndrome.
- Even moderate physical activity such as standing and walking briefly can impact blood pressure, digestion and other bodily functions.
- Some studies have even shown that sitting for prolonged periods of time can impact cardiac health, risk of certain cancers and mortality even when accounting for other risk factors and when stretching to counteract the overall impact of static posture.

The Apple Watch is one mass market device that will focus attention on standing and regular physical movement. More specialised devices focused on highlighting and correcting poor posture are also in development. Going an even more basic route, reminder apps that coach users to stand and move around could be used with mobile devices or even desktop

PCs to encourage standing and related ergonomic behaviours.

Some workplaces are already adapting to these issues by offering standing desks to workers – either those with diagnosed back problems or those who request them to ensure better postural health. A related option being adopted by some companies is the use of treadmill desks that encourage both better posture and physical activity.

There's also a growing movement for standing meetings, which not only impact the amount of sitting, but also encourage meetings that are shorter and more productive. Some evidence even suggests that standing or walking meetings increase employee engagement, participation and morale during meetings.

All of these factors have the potential to redesign individual and collective workspaces to one degree or another. They also integrate well with the move towards flexible office spaces. As Brandy Fulton, Citrix's vice president of Human Resources, discussed with me in 2013, flexible workspaces allow workers to switch between a range of different work options depending on their needs. Adding standing and treadmill desks and spaces designed for standing meetings and collaboration to the mix is a natural extension of this trend.

Exercise spaces are also growing among companies offering wellness programs.



The reason is simple – offer fitness classes in the office and you encourage physical activity, weight loss and even stress reduction. Although a conference room can often serve for an occasional class, a dedicated space encourages employees to engage in exercise outside of dedicated classes. They can also make scheduling or rescheduling classes easier.

These dedicated spaces actually go beyond traditional exercise classes in some cases. A small but growing number of wellness programs take mental health and stress reduction into account as well. This can mean in-office yoga and meditation classes. It can also mean dedicated space for supporting these habits throughout the day, which can be useful in ensuring stress reduction, employee interactivity outside everyday work encounters and even offer increased opportunities for engagement and collaboration.

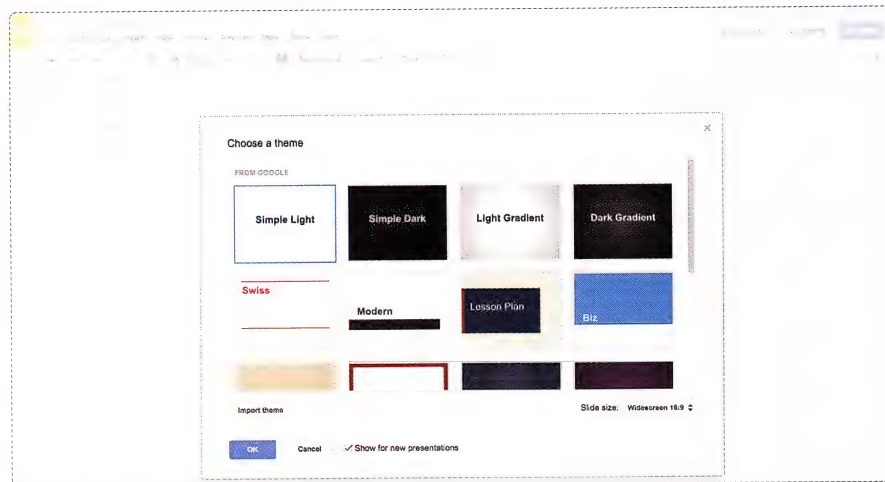
Some organisations have gone even further. In her book *Thrive*, Arianna Huffington notes that at one *Huffington Post* office, nap rooms are provided off the main newsroom for staff that spend large amounts of time on duty.

While these programs won't immediately spell an end for the office as we know it anytime soon, they are likely to encourage notable changes in many workplaces. As more companies see a range of values in employee wellness like lower insurance costs, fewer sick days and increased morale and productivity, however, this is likely to drive incremental changes in many industries over the next several years.

USING GOOGLE APPS IN YOUR BUSINESS

BY ANTHONY CARUANA

For many of us, Google is where we go to search for things online and where we read our email. But there's a lot more to Google Apps.



GOOGLE DRIVE

Although Dropbox is probably the most well-known and popular cloud storage service, Google's Drive is no slouch.

Although many would be aware of the free offering of up to 15GB of data shared between Google Drive and Gmail for consumers, business users can access unlimited storage for \$10 per user per month.

For that, you can sync files between your computer and the cloud, making it easy to move between computers and mobile devices such as your iPad or iPhone. You can also share large files with clients easily by sending them a private link to data stored on Google Drive and you have a spare copy of your data stored away from your computer should disaster strike.

FORMS

There are times when you need to collect data or want to conduct a survey. For example, you may be conducting a sales event or want to canvass your staff's view on something. Forms lets you create professional-looking online surveys easily.

The data that's collected is automatically fed into a spreadsheet that can be manipulated and analysed using Google's Sheets application. Or you can download the file and use your preferred desktop spreadsheet application.

HANGOUTS

We live and work in a world where collaboration is critical. Hangouts lets you set up video conferences with up to 15 parties using computers, tablets and smartphones.

As Google's tools are multiplatform, you can be assured that clients and colleagues can easily connect.

One of the neat features of hangouts is the ability to screen share. This allows one of the conference participants to share their screen so the others can see it. They can also hand control over so remote conference participants can directly interact and manipulate what's on the screen.

SITES

Chances are, a designer and some technical gurus created your corporate website. However, there are times when a simple website would be handy for a specific project. Sites makes it easy to spin up a website for sharing project documents and connecting team members.

For a small business on a budget, Sites is a great way to establish your web presence. Although Google isn't a registrar – someone that can sell you a domain name – it can automate that process so that your newly created site can be easily hooked up to your company's domain name. Similarly, that domain can be used on your email and other corporate, online services through Google.

DOCS, SHEETS AND SLIDES

Google was the first company to deliver some serious competition to Microsoft when it comes to corporate productivity. Until a few years ago, there was very little competition for Microsoft as it had seen off all of the early market leaders including the original spreadsheet, Visicalc, and long-time leader in word processing WordPerfect.

One of the great features of Google's productivity application suite is the ability to have multiple contributors work on a document at the same time. For example, if your sales team is working on a proposal, you can have different people editing different parts of the document at the same time with all of their changes being saved.

MAIL AND CALENDAR

Google's initial foray into our offices was through email. That was a decade ago when Gmail was lanced as an invitation-only service. In an era when email services offered just a few megabytes of storage, Google's offer of 1GB seemed ridiculous. It took a few years for the market to catch up.

Today, Gmail and Calendar are the products that get many companies started on their journey with Google Apps.

FIVE TIPS TO MAKE INTERNET BANKING SAFER

BY ANTHONY CARUANA

Visiting the bank for everyday tasks such as withdrawing cash, making deposits and paying bills is a relic of the past. Online payments are common and we can easily manage several bank accounts, transfer money and look after the company finances with just a few mouse clicks.

We are well and truly in the era of internet banking. How do you make online banking safe?

Online banking brings financial services to the palm of your hand so they can

be accessed from almost any place at any time.

Here are our five tips for safer online banking.

1. DON'T SHARE ACCESS BETWEEN MULTIPLE PEOPLE

Within many businesses, there are often several people who have authority to access the corporate accounts. Ensuring that each person has their own password means you can keep tabs on who is doing what and follow up any problems.

It also means individuals don't have to share passwords. So, if one person leaves the business, you only have to cancel their account rather than tell everyone the new password.

As a bonus, your auditors will prefer that everyone's access is segregated so that staff can only access the accounts they need.

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2. LOOK FOR TWO-FACTOR AUTHENTICATION

Two-factor authentication (sometimes abbreviated to 2FA) requires that you enter two pieces of information to log in. It's based on something you know (like a password) and something you have (a one-time code that's generated by a special device called a token).

Several Australian banks offer two-factor authentication. Often, they do this by sending a one-time code to a mobile phone. So, you need to enter both your password and the one-time code in order to access the online banking service.

Although it's not commonly offered to consumer banking customers, it's a feature that business customers can access.

3. DON'T USE PUBLIC HOTSPOTS

Public Wi-Fi hotspots may be convenient, but they are very insecure. It's trivially easy for a motivated party to intercept wireless data while it's in motion and then use that information for nefarious purposes.

If you need to do mobile banking – don't use a public hotspot. You're better off using the hotspot functionality on

your smartphone as you can secure that and then take advantage of the cellular network's built-in security.

In short – consider any data you send and receive on a public hotspot to be available to anyone else who can connect to that hotspot.

4. BANK IN PRIVATE

Shoulder Surfing is the act of sitting over someone's shoulder and looking at what they're doing. If you watch carefully and have a good memory, you can capture someone's username and password as they type.

Even if you're using a private internet connection, make sure no one is looking over your shoulder and looking at what you type and what's on the screen.

Even if someone only has your username they can lock your account by entering the password incorrectly and then try to fool a call centre operator into resetting the password so they have access to your accounts.

5. PHISHING SCAMS

There are some very sophisticated phishing scams being perpetrated by data thieves.


In a phishing scam, an email is sent to you that looks like it was sent by your bank. It will have the right logos, be written in banking language and have links to what looks like your bank's website. Another form of phishing scam is to call you over the phone and ask you to provide account information to 'assist' you with some sort of mysterious, previously unknown to you account problem.

In reality, everything is fake and designed to get you to enter your username and password. This is captured by the bad guys who use the information to pillage your account.

The solution is simple – never click a link in an email from a bank or provide account information over the phone.

If you think the issue is real – go to your bank's website directly and not via an email link or phone your bank's call centre.

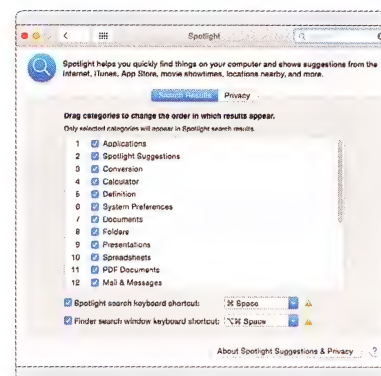
No bank will ever ask you to reset your account password via email or over the phone.

Internet banking is incredibly convenient but it's important to follow safe practices when using it. 



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PROUDLY SUPPORTING MAC IN BUSINESS



Fixing the three most annoying quirks of OS X Yosemite

BY KIRK MCELHEARN

OS X 10.10 Yosemite is available for download and, while there aren't many surprises in the interface – which Apple has been showing off since June – users are getting their first tastes of the new look and new features. And many of them are finding that there are some annoyances in the way Yosemite displays (or doesn't display) certain things. Here are my top three Yosemite annoyances and how you can fix them.

THE CASE OF THE MISSING ITUNES SIDEBAR

Since the earliest days of iTunes, the sidebar – the list at the left, which showed your different media libraries, your playlists and your connected devices – was a familiar and practical tool. But now, in iTunes 12, it's gone. It had already been granted second-class status in iTunes 11, but iTunes 12 nuked it.

Well, not exactly... You still can display a sidebar, though it won't show everything the previous versions did. When viewing any of your media libraries, click on Playlists in the navigation bar near the top-centre of the window. This displays a sidebar with the name of your currently selected library at the top and your playlists below. This playlists sidebar displays in any media library, and if you click the name of the library – such as Music – you can choose to view your content along with the sidebar.

While it's not exactly the same as before, it's better than nothing.

WHAT'S THE ADDRESS?

In Safari, by default, you no longer see the full address of a web page that you're visiting. For most people, this isn't a big deal, but I sometimes want to know the exact address of a web page. Fortunately, there's an easy fix for this.

In Safari, go the Preferences window (choose *Safari > Preferences*), then click Advanced. At the top of this preference pane, in the Smart Search Field section, check Show full website address. You'll now be able to see the full address of a page.

It's worth noting that if this option is turned off, you can still see the full address by clicking in the address field; this highlights the URL and displays it in full.

TOO MUCH INFORMATION

Spotlight is a great tool for searching for things on your Mac, and it's now been extended to search the web and Wikipedia, perform conversions and much more. But there's a lot of information displayed by default when you invoke Spotlight – perhaps too much.

You can whittle this down by choosing *System Preferences > Spotlight*, then unchecking some of the categories on the Search Results tab.

Another way to make Spotlight searches more useful is to reorder the different results. If you want, say, your contacts to be at the top of the list, just click on Contacts in the preference pane then drag it up the list. You'll see a small line display as you move items up and down. Customise Spotlight so it works the way you want it; you may want to leave all the categories checked, but just move down to the bottom the ones you don't use often.



How to use iCloud Drive

BY KIRK MCELHEARN AND CHRISTOPHER BREEN

Much as you may have been satisfied with the way iCloud synced your data in the past, if you'd hoped for comprehensive file syncing between your Mac, iOS devices and the cloud, you were likely frustrated. Prior to OS X 10.10 Yosemite, iCloud's file storage was sandboxed, meaning that you could only access files created with a specific application by that application. You could, for example, launch Pages and access the Pages files you stored in the cloud, but you couldn't use that same app to open TextEdit files stored in iCloud.

Enter iCloud Drive. Taking its cue from Dropbox, which is a simple file repository accessible from any app, Apple has changed the way iCloud manages files.

USING iCloud DRIVE ON A MAC

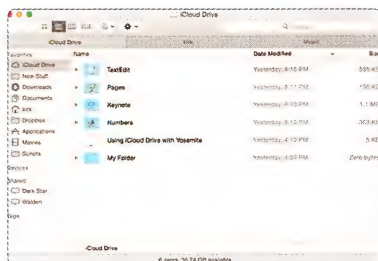
In the past, with iCloud-compatible apps, you could choose to save your files locally or to iCloud. With Yosemite that option is available to all apps. And it's not difficult to access it. Open a Finder window and you'll see an iCloud Drive entry. (If you don't see it, choose *Finder > Preferences*, click *Sidebar* and check *iCloud Drive*.) Click on this icon and you'll spy a group of folders that represent the apps associated with the files within. (You won't find data synced with the

Contacts, Calendar and Notes apps as these are strictly application files.)

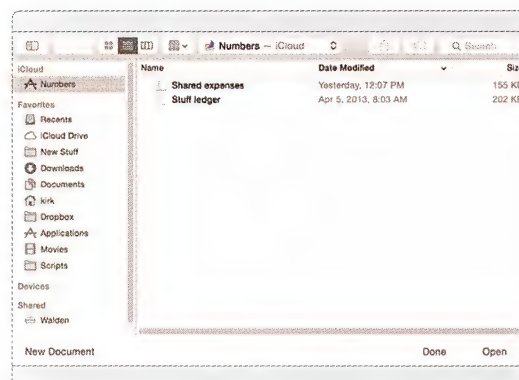
To use a file on a Mac, open the folder that holds it and double-click on it (see the screenshot below where there are folders for Numbers, Pages and TextEdit) or launch an app, use the Open command, and navigate to it on your iCloud Drive.

In cases where apps have been updated with iCloud Drive in mind the app's name will appear under the iCloud heading in Open and Save dialogue boxes. (If you're using an app that hasn't been updated for iCloud Drive its files will be stored, by default, at the top level of iCloud Drive, though you can create your own folders for them.)

For example, in the image right you can see the Open dialogue when you launch Numbers. At the top of the sidebar is the iCloud heading with the Numbers entry below. This is a shortcut to the Numbers folder stored in iCloud Drive.



In the Finder. iCloud Drive holds folders for associated apps, folders you create and documents.



Open it. Access any files in iCloud Drive from a standard Open dialogue.

You can now also access files you created with other apps (and other apps can access files you've created with iCloud-compatible apps). Let's say you're writing a report in Pages and you use a compatible text file that you created in TextEdit – a file saved in Microsoft Word .docx format, for example. You can launch Pages, choose *iCloud Drive* in the *Finder* sidebar, select a compatible document in the *TextEdit* folder, and open it.

MOVING AND SHARING iCloud DRIVE FILES

iCloud Drive lets you move files between your Mac and the cloud. There are two ways to do this. The first is to simply move a file in the *Finder*. When you do this, the *Finder* displays a dialogue, warning you that when you move it to your Mac it will be deleted from your iCloud Drive.

The other way to move a file is from within an app itself. If you have a file open and you want to move it between your Mac and iCloud Drive, choose *File > Move To*, and then select a location. The file will be moved but you won't be warned about it being deleted from your iCloud Drive.

In the Finder you can also copy a file from iCloud Drive and paste it into any other folder. Just select the file, press ⌘-C , navigate to a folder, and press ⌘-V . If you do this, though, remember that you now have two copies of the same file.

And you can send an iCloud Drive file to others in a variety of ways. Within the Finder, open your iCloud Drive, select a file, and then click on the toolbar's Share menu. You'll find options for sharing via Mail, Messages, AirDrop and More. Select More and System Preferences launches and the Extensions preference appears, where you can select additional sharing options (not all of them may be compatible with sharing particular file types, however).

iCLOUD DRIVE ON THE WEB

iCloud Drive is also available from your browser. Sign into icloud.com and click iCloud Drive. From within the resulting window you can manage all your files and folders – download and upload files, create new folders and move files into new folders or to the root level of your iCloud Drive. Any changes you make on the web or on your Mac are propagated to all your devices, but it may take a minute to see them.



Via the web. Access all the files you store in iCloud Drive from your browser.

Using the web versions of the iWork apps – Pages, Numbers and Keynote – you'll be able to work with compatible documents stored on iCloud Drive. For example, launch the web version of Pages and the Pages documents you've stored on iCloud Drive will be available to you. Select one and get to work.

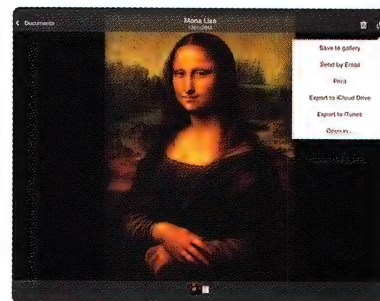
USING iCLOUD WITH iOS 8

There is no iCloud Drive iOS app so you don't have Finder-like access to the files in your iCloud Drive. Instead, you access them through an Open command within individual apps. Let's use Pages as an example.

On your Mac you've saved a .txt file into iCloud Drive's TextEdit folder. On your iPad, launch Pages, click the Plus (+) button in the top-left corner, and choose iCloud. An iCloud window appears that displays the contents of your iCloud Drive. Tap on the TextEdit folder and then tap a compatible file (Pages won't open RTF files). A copy of that file will open in Pages.

iOS apps written to take advantage of iCloud Drive can additionally export their files to an iCloud Drive folder. We'll use Pages again.

Within Pages open a document, tap the Share icon, and tap Send a




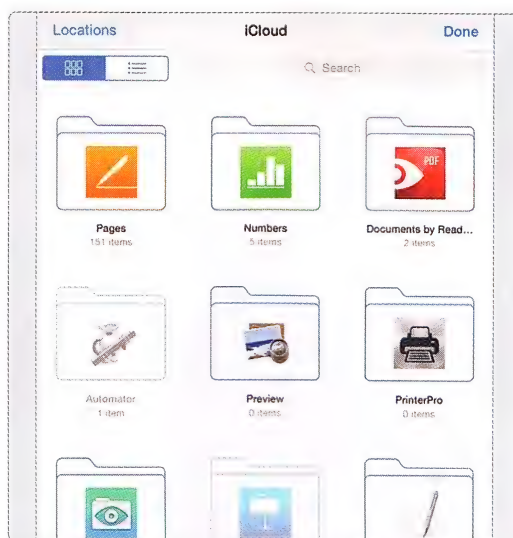
Third-party apps. Compatible apps such as Readdle's Documents 5 allow you to export files to iCloud Drive.

Copy. In the Send a Copy window that appears choose an output format (Pages, PDF, Word or ePub). The file will be converted and a Choose How to Send window will appear. Tap on Send To and the iCloud window appears. Tap a folder where you'd like to store the document and, at the bottom of the resulting window, tap Export to this location. The file will be copied to that folder on your iCloud Drive.

BETTER BUT STILL LIMITED

iCloud Drive is less flexible than other cloud storage services, such as Dropbox, Box, Google Drive, OneDrive and MediaFire. Outside of the options available in the Sharing menu you can't share and sync your iCloud Drive documents with others, for example, thus making document collaboration tricky. With these third-party storage services you can send a link to anyone so they can download a file. With iCloud Drive you can share files this way only with documents created with iWork apps. iCloud Drive has other limitations as well. You'll need OS X Yosemite and iOS 8 and you can't save files larger than 15GB, for example.

For now, iCloud Drive is a useful way to access some of your files on different devices including Macs, Windows PCs and iOS devices. As time goes on it will become more helpful as additional third-party apps are updated to take advantage of it. 



iOS app. Your iCloud Drive as seen through a compatible iOS 8 app.

YOU CAN ASK THE *MACWORLD AUSTRALIA* TEAM ANY MAC- OR APPLE-RELATED QUESTIONS BY EMAILING EDITOR@MACWORLD.COM.AU. ANSWERS THIS MONTH BY CHRISTOPHER BREEN.

STM READER TIP

Shortcut to Dark Mode in OS X Yosemite

OS X Yosemite has a new feature that some readers may find useful, Dark Mode. Dark Mode changes the way Yosemite looks, inverting the translucent menubar, drop-down menus and dock with black text to a darker display with bright white text. It is an easier way to view your Mac's screen at night. To enable Dark Mode you have to open *System Preferences > General* and tick the Use Dark Menu Bar and Dock option.

Rather than heading to the System Preferences pane every time, you can make a shortcut via the Terminal. Paste the following in the Terminal:

```
sudo defaults write /Library/Preferences/.GlobalPreferences.plist _HIEnableThemeSwitchHotKey -bool true
```

Then you will be able to enable and disable Dark with the following keyboard shortcut:

Control-Option-⌘-T

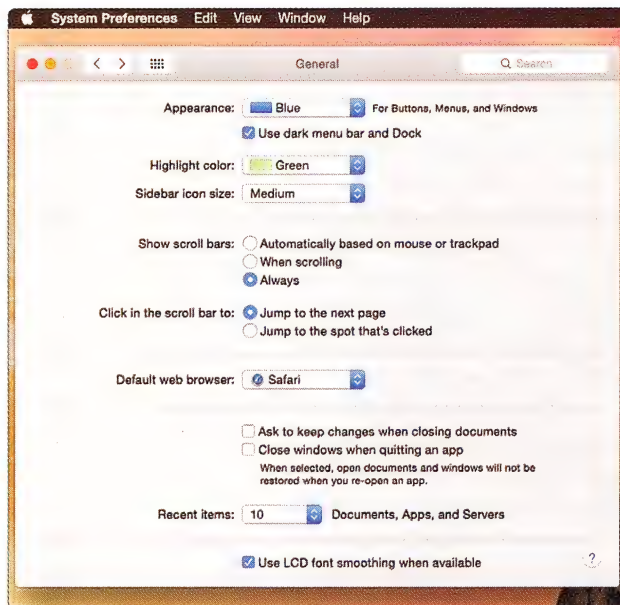
EACH MONTH, STM gives a prize to the *Macworld Australia* reader who submits the best and most useful tip (undocumented tips preferred). This month's prize is a comfortable and portable STM trust medium laptop messenger bag worth \$149.95.

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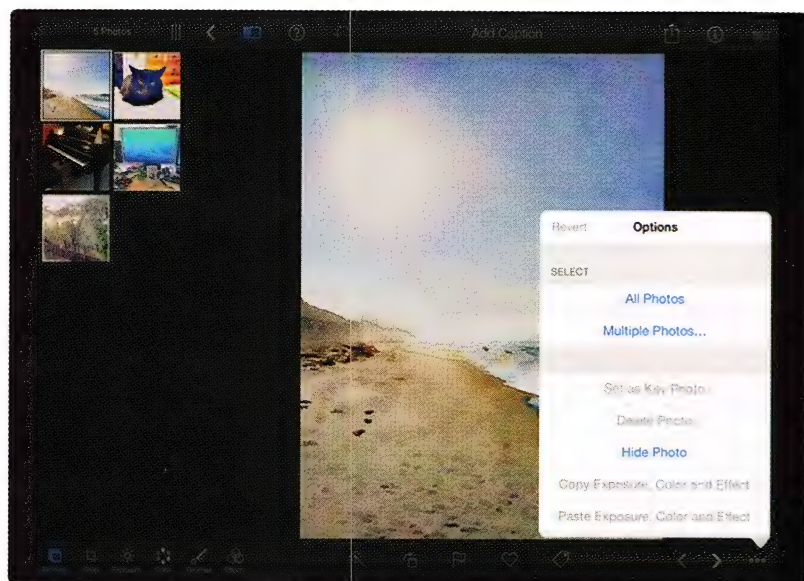
? SEND MULTIPLE IMAGES FROM IPHOTO

When I'm running iPhoto on my iPad I'd like to pick a particular photo or several photos from a shared online album and email them to someone. I don't see how to do that unless I use the Photos app. What am I missing?

Tim McBrayer

Photos, as a simple image viewer, is pretty straightforward, so it's easy to select and share multiple photos. iPhoto, on the other hand, has a far greater collection of features and so some have been tucked away in ways that may not seem obvious. Here's how to go about it.

Launch iPhoto and tap on Albums. As long as Photo Stream is enabled within your iCloud settings on the iPad you should see your shared albums. In the Albums screen tap on the album from which you'd like to select images. In the resulting screen you'll see the images within the album as thumbnails, either at the bottom of the screen (when you hold the iPad



Select and share.
The key to selecting multiple images is the Options window.

in portrait orientation) or along the left side (in landscape orientation).

To select multiple images tap on the ellipses (...) icon in the bottom right corner. In the Options window that appears tap Multiple Photos. Then, tap the thumbnail images that represent the pictures you'd like to email. (Note that when emailing images you can choose only up to five.) A white check mark will appear in the top right corner of each selected image. Tap Done when you are.

All the selected images will now appear in larger form in the main window. To email them, just tap on the Share icon at the top of the screen and tap Mail. In the resulting pane choose Selected, Flagged or All. If your options are greyed out, it means you've selected more than five.

When you make your choice a New Message sheet appears that contains your images. Just enter addresses in the To field, enter a Subject heading, add a message if you like and tap Send.

? IDENTIFYING AND UNSUBSCRIBING UNWANTED EMAIL

Over the years I've purchased items from a variety of online merchants as well as signed up for some recommendation services. Because I have, I receive a lot of email from these places and I'd like to stop getting some of it. Do you have

any suggestions for identifying and stopping these messages?

Betina Baylor

I do. Rather than suggest that you click through every message in your Inbox seeking Unsubscribe links, let's use the power of email filters to bring these messages to your attention.

If you're using Apple's Mail, try this: Choose *Mailbox > New Smart Mailbox*. In the sheet that appears name your mailbox Unsubscribe. Configure the first condition in the area below to read Entire message contains unsubscribe. Click the plus (+) button and configure another condition to read Entire message contains 'privacy policy'. Click plus again and create a third condition that reads Entire message contains 'manage your account'. Click on the All pop-up menu above the conditions, choose Any and click OK.

When you now select this smart mailbox you'll find all the messages that contain any of these phrases. Click on the appropriate link within each message to unsubscribe from email alerts.

Note that if a message is spammy in appearance – it's from a service or advertiser you've never heard of – mark it as spam rather than click any links within it. It's possible that clicking Unsubscribe in such a message will simply confirm to a spammer that they've found a legitimate address that they can then sell to other spammers.

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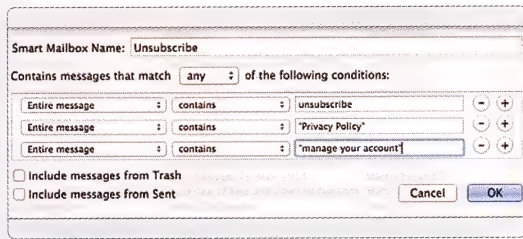
Product Code: AWPAD102A **\$89.95**

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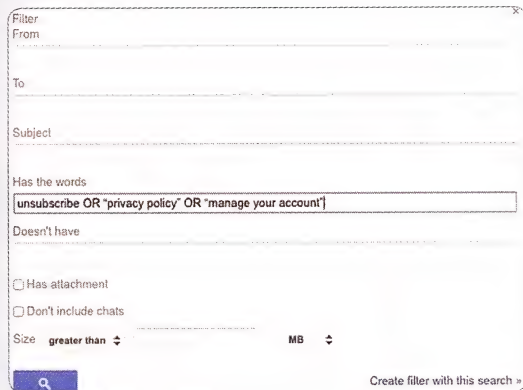
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Search to unsubscribe.

This smart mailbox will help you identify messages that contain unsubscribe links.



"This is all well and good," you may be thinking, "but I receive most of my email on my iPad, which doesn't support smart mailboxes."

In that case you should pay a visit to your email server and create a filter there. Let's use Gmail as an example.

Using your web browser, log into your Gmail account. Along the left side of the window click More at the bottom of your list of mailboxes and then click Create New Label. In the resulting New Label window enter Unsubscribe in the name field and click Create.

Now click the gear icon and choose Settings. In the window that appears click on the Filters link and then click Create a new filter. In the window that appears enter unsubscribe or 'privacy policy' or 'manage your account' in the Has the words field and click the Create filter with this search link. In the next window enable the Apply the label option, choose Unsubscribe from its pop-up menu, enable the Also apply filter to matching conversations option and click Create Filter.

Now when you check your Gmail account on your iPad you'll find that it holds a new Unsubscribe folder. Select it and you'll see any messages that contain the phrases you entered in the filter. Tap on the appropriate links in the body of each message to remove yourself from the sender's list.

Filter at the source. You can also create a Gmail filter to seek out these messages.

? USING YOUR IPHONE AS A REMOVABLE HARD DRIVE

I sometimes need to carry files with me and transfer them from one computer to another. To do that I copy them to a flash drive. But then I leave that drive behind or lose it. Is there some way that I can use my iPhone for that kind of storage?

Dale Caywood

You can, though your iPhone won't appear as a mounted USB hard drive as a normal flash drive does.

There are many iOS apps that will accept your files and then, via iTunes, let you copy them to another computer. TapMedia's FileManager does this and it's free. Just download a copy to your iPhone and then connect your phone to your Mac and launch iTunes.

In iTunes select your iPhone, click the Apps tab, and in the File Sharing area select FileManager. Drag the documents you want to store on your iPhone into the FileManager Documents area to the right. Unlike with some other apps, FileManager isn't picky about what you throw at it. Although it can read some file types, if it can't read a particular file it won't refuse to store it.

Now unplug your iPhone and take it with you. When you later wish to

retrieve one of these stored files, plug your iPhone into another computer, launch its copy of iTunes, and follow a similar process – select the iPhone in iTunes, choose the Apps tab, scroll down to the File Sharing area and select FileManager. Select all the files you want to copy to that computer and drag them to the desktop.

Before we leave the subject I might mention that moving files around this way is a little old-fashioned. Cloud services such as Dropbox, OneDrive, Google Drive and iCloud Drive, let you place a heapin' helpin' of your files somewhere that's easy to access (provided that you have an internet connection).

? CORRECT SIRI'S PRONUNCIATION

I like using Siri on my iPhone but she mispronounces my name as well as the names of some of my French friends. Is there anything I can do to teach her to speak properly?

Regina Laurent

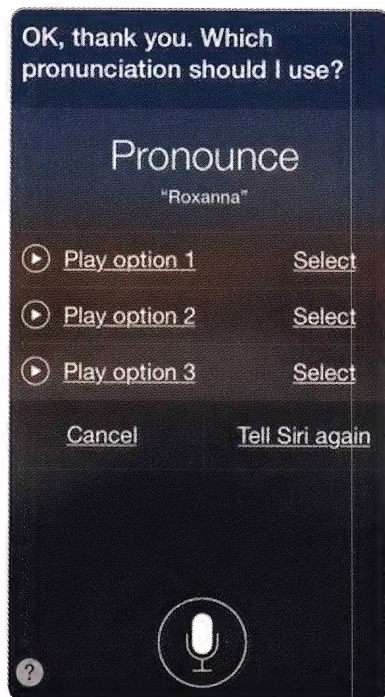
You have a couple of options. The first is to deal directly with Siri (which I'll refer to as 'she' even though it can use a female or male voice).

TIP: EMAIL THREAD NOTIFICATIONS

It's unlikely that you want to be notified every time you get an email, but there are always those important email threads that require immediate attention. In iOS 8, Apple lets you stay on top of emails by enabling reply notifications, which you can turn on for individual emails and email threads.

To do so, open the email you want to get notifications for, tap the flag icon in the bottom left corner, and then tap 'Notify Me...'. Now, click Notify Me to confirm you want to turn Notifications on. To stop notifications, tap the same icon and then tap 'Stop Notifying'.






When Siri mispronounces a name, reply, "That's not how you say that." Siri will respond with "OK, how do you pronounce the name (firstname)?" where firstname is that contact's first name. Say the first name and Siri offers you three pronunciation choices. Tap each sample and then tap Select next to the one closest to the pronunciation you prefer. If none of them are as close as you'd like, you can tap Tell Siri Again and she'll take another stab at it.

You'll then be prompted to say the last name. Follow the same procedure.

If that doesn't work, open the contact within the Contacts app and tap Edit. Scroll down the screen and

tap on Add Field. In the resulting screen tap Phonetic First Name, Phonetic Last Name or Phonetic Last Name, depending on the name that Siri stumbles over.

In the field that appears, enter a spelling that approximates the pronunciation you're after. For example, if Siri pronounces your last name Lore-ent you'd enter Lore-ont. In some cases you'll get closer by tapping on the keyboard's Dictation button and pronouncing it the way you'd like it spoken. Tap Done and Siri should now pronounce the name correctly. Regrettably, Siri can't be taught how to correctly pronounce place names. 

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Multi-room audio

Your favourite music shouldn't be confined to a single room – it should be available across your house. ADAM TURNER takes a look at four solutions on the market.

Sonos Digital Music System

Sonos offers Play:1, 3 and 5 speakers to cater for different-sized rooms, with the ability to link speakers as stereo pairs for a wider sound stage. There's also the Sonos SUB, which adds extra low-end grunt to any room or can be linked with the Sonos Playbar – a long soundbar speaker designed to improve the sound from your television.

The Sonos speakers create their own mesh 5GHz wireless network. Originally, one speaker needed to be connected to your home network via Ethernet, unless you wanted to pay extra for a Sonos wireless bridge. Thanks to a recent update, you no longer need a bridge to link to your home Wi-Fi network.

Controlling your Sonos system from iOS, Android, Mac or Windows, you can play music in sync throughout your home, or send different songs to different speakers. You can listen to music stored on that controller, or from a Samba network share. Alternatively, you can tap into internet radio and a wide range of subscription music services including Spotify, Rdio, Pandora, Google Play, JB Hi-Fi NOW, Deezer, Rhapsody and Last.fm.

You can't send music directly to a Sonos speaker via Bluetooth, but the speakers show up as DLNA media renderers on your home network. Sonos' party trick is that some speakers let you connect an audio component, like a CD player, and send the output to any speaker. Sonos also offers adapters for hooking up your own speakers or sound system, but they're rather expensive.

Put to the test, Sonos speakers sound superb. Audiophiles may be disappointed that Sonos doesn't support 24-bit high definition audio, but it's still hard to find fault with the sound. Music is full, rich and clear – with excellent but not overwhelming bass – and the speakers don't distort even when you crank up your music.

Bottom line. Sonos has long set the gold standard for multi-room audio and hasn't rested on its laurels.



FROM \$299 / SONOS

www.sonos.com

PROS 5GHz networking; extensive subscription music access

CONS No Bluetooth

Pure Jongo

Backed by a strong audio heritage, Pure's Jongo is a worthy challenger to Sonos' crown.

You'll find the Jongo T2, T4 and T6 speakers catering for different-sized rooms, with the option to create stereo pairs. There's also the S3 portable rechargeable speaker and the \$199 A2 wireless hi-fi adapter for hooking up your existing sound system (supporting 24-bit audio). There's no Jongo standalone subwoofer or soundbar.

The Jongo speakers let you mix and match songs between rooms, but they don't require a wireless bridge, nor do they create their own mesh network. Instead, they all connect directly to your existing home Wi-Fi network, but they only support 2.4GHz networks and not 5GHz. Unfortunately, this is a deal-breaker if you find that your microwave oven or other local interference tends to interrupt your 2.4GHz network.

Jongo's party trick is that you can stream directly to each speaker via Bluetooth, plus the speakers show up as DLNA media renderers on your home network. There's also a line-in for playing music from external devices, but you can't send that sound to other Jongo speakers around your home.

You drive your Jongo speakers from the iOS or Android app. You can play music from that device or across your home network via DLNA. You can also tap into internet radio or the Pure Connect cloud service. There's no direct support for third-party services like Spotify and Rdio, but there is a workaround that lets you stream from any music app to multiple Jongo speakers via Bluetooth.

Jongo's speakers sound fantastic – they're rich and clear, with no distortion at high volume. Speaker preferences come down to personal taste, but to our ears the Jongo sounds a little more full-bodied than the clean and precise Sonos speakers.



Bottom line. Ultimately, it's the lack of 5GHz and native Spotify/Rdio support that sees it fall just short of Sonos.



FROM \$269 / PURE

www.pure.com/au

PROS Bluetooth; speaker adapter

CONS 2.4GHz Wi-Fi only



OUTSTANDING



VERY GOOD



GOOD



FLAWED



UNACCEPTABLE

55

DECEMBER 2014
www.macworld.com.au

LG Music Flow

The H3, H5 and H7 speakers follow the typical small, medium, large speaker offering favoured by multi-room audio systems. You'll also find the HS6 soundbar/subwoofer bundle, plus a network bridge for linking the speakers in a dual-band 2.4/5GHz mesh wireless network. Speakers feature a line-in for playing music from external devices, but you can't send that sound to other speakers around your home. There's no Music Flow adapter for hooking up your existing sound system.

You control the Music Flow system via an iOS or Android app, playing the same song in sync throughout your house or sending different songs to different rooms. You can play music from your handheld device, from your home network via DLNA, from internet radio or from a few subscription services including Spotify and TuneIn (with more to come). Alternatively, you can stream directly to any speaker via Bluetooth.

Music Flow's party trick is that built-in NFC (near field communication) lets you tap your phone on a speaker to play music – handy for Android users, but no use to iPhone fans because Apple locks down NFC. You can also use LG's Home Chat ecosystem when you're on the road to queue up music so it's playing when you walk in the front door.

The surprise inclusion is support for 24-bit audio, letting you stream high-definition lossless audio files such as FLAC and WAV – handy if that's how you've ripped your music library.

While Music Flow is designed to do high-quality music justice, you may be underwhelmed with the sound quality. If you've a keen ear and you favour the clean and precise Sonos speakers, then you may find your music sounds a little too brash and overblown via Music Flow.

Bottom line. LG's Music Flow is feature-packed and flexible, but it can't match the sound quality of Sonos and Pure.



Samsung Shape

Samsung's M3, M5 and M7 speakers cater to different room sizes, plus there's the M2 wireless bridge. The wedge-shaped speakers are designed to fit into corners, or you can use the supplied stand to rest them upright, and there's the option to create stereo pairs.

The speakers are linked by a dual-band 2.4/5GHz mesh wireless network, or you can stream directly to any speaker via Bluetooth. Some speakers also feature a 3.5mm line-in, but there's no Samsung Shape adapter for connecting up your existing sound system. You will, however, find the Multi-Room Link Mate Adapter, which can act like a soundbar and connects to external audio sources via analogue or digital line-in as well as Bluetooth.

You can drive the Samsung speakers from iOS, Android, Windows or Mac, mixing and matching music between rooms. You can play music from your device or from your network via DLNA or the Samsung Link music server software. Alternatively, you can access a range of subscription services including Pandora, Spotify, Rdio, Deezer and TuneIn.

Fast NFC pairing is also Samsung's party trick, letting Android users tap on a speaker to play music. There's also a 'room to room' function, which lets the music follow you around the house, but this is also limited to some Android handsets.

Like LG Music Flow, the surprise inclusion is support for 24-bit audio, letting you stream high-definition lossless audio files such as FLAC and WAV.

Also like LG Music Flow, Samsung's sound quality falls short of Sonos and Jongo. You may find the Samsung speakers a little murky and flat in comparison.

Bottom line. Samsung Shape also embraces 24-bit audio and NFC fast-pairing, stacking up well against LG Music Flow, but it's not in the same class as Sonos and Pure's Jongo.



FROM \$249 / LG

www.lg.com/au

PROS Bluetooth; NFC; 24-bit audio

CONS Slightly brash sound



FROM \$269 / SAMSUNG

www.samsung.com/au

PROS Bluetooth; NFC; 24-bit audio

CONS Slightly murky sound



Apple iPad Air 2 and iPad mini 3

The Air 2 is the best tablet ever and the iPad mini 3 comes in gold.

It's a little thinner. It's a little lighter. It's a whole lot faster. All of this makes the iPad Air 2 both more of the same and better than ever.

The form-factor didn't change since last year's redesign, but even though the iPad Air 2 is slimmer than its predecessor, Apple didn't sacrifice battery life. The company claims up to 10 hours using Wi-Fi, and in three battery rundown tests I averaged 10 hours and 14 minutes of continuously watching a 720p video.

IT'S A LOOKER

The new gold colour is lovely. But I wish you could choose the colour of the front bezel.

Apple did shave 18 percent off the thickness of the iPad Air 2 compared to the last version. It's just 6.1mm thick. It feels more like a thin magazine than a tablet. At 437g for the Wi-Fi version, the weight isn't dramatically lighter than the previous iPad Air, which weighs 469g, but if you're transitioning from a larger iPad

(the 4th generation and earlier), you'll notice how much lighter this is.

Its weight seemed to disappear in my handbag, only slightly heavier than an iPad mini (331g). I held it with one hand for long reading sessions (turning pages with my other hand) without getting tired.

The other most noticeable difference is the antireflective coating on the screen. It's much easier to see in bright sunlight than ever. I brought it to an outdoor concert on a completely cloudless day, and my son happily played Toca Boca apps all day with the brightness all the way up. I'd still love a couple more notches of brightness for the sunniest conditions, but you can really see what's on screen, and that's a big improvement.

IT'S A COOKER

Even with a slimmer body, the iPad Air 2 packs plenty of punch. Its A8X processor clocked a Geekbench 3 single-core score of 1812 and multicore score of 4519. That multicore score is 70 percent faster than the iPad Air, which turned in scores of 1463 and 2652, respectively. The same A7 chip in that first iPad Air is also in the iPad mini 3 and the iPad mini 2, and their Geekbench 3 scores were comparable but just a little slower.

What does that all mean? The iPad Air 2 does everything faster. Apps launch faster. Resource-heavy creative apps like Photoshop Mix, Pixelmator and iMovie finish their tasks in record time. I played *Modern Combat 5: Blackout* and *Asphalt 8: Airborne* (poorly) with next to no loading times and never a stutter or crash. Before this, I was primarily using a third-gen iPad, and the difference is striking.

IT'S A CAMERA?!

Apple beefed up the photo capabilities of the iPad Air 2 as well, giving it an eight-megapixel iSight camera on the back, and a 1.2-megapixel FaceTime camera on



the front. Photos taken with the iSight camera are crisper and more detailed than the five-megapixel photos taken by the rest of the iPad lineup.

In fact, photos I took with the iPad Air are hard to distinguish from photos I've taken with my brand new, eight-megapixel iPhone 6. The iPad Air 2 has many of the same camera features as the iPhone, designed to make it easy to shoot great-looking photos and videos: face detection, a $f/2.4$ aperture (the iPhone 6 is $f/2.2$), even 720p 120fps slo-mo video and burst mode for stills. The iPhone still outperforms it in low light, but the iPad Air 2 has a much better camera than last year's version.

WHO SHOULD BUY IT?

If you already own an iPad Air, you're probably not in a hurry to replace it, and you shouldn't be. The iPad Air 2 is faster and takes better photos, but the iPad Air is still plenty capable. If you own a third- or fourth-gen iPad and managed to resist the iPad Air, the iPad Air 2 will feel like the huge step up that it is.

I still have a first-gen iPad kicking around my house, and the difference between that and the iPad Air 2 is like going from a rusty banana-seat bicycle to a Harley. It's remarkable how far the iPad has come in under five years.

WHAT ABOUT THE IPAD MINI?

Apple kept last year's iPad mini with Retina display in the lineup, dropping the starting price to \$369 and rechristening it the iPad mini 2.

The iPad mini 3 introduced alongside the iPad Air 2 doesn't have any new features besides the gold colour (which is a colour, not a feature) and the addition of Touch ID.

Now, Touch ID is great. I just got my first Touch ID button on my iPhone 6, and barely two months later I'm totally hooked. I recently had to use my iPhone 5c for a couple days and I was constantly trying to unlock it with my thumbprint, because Touch ID had completely overwritten six years' worth of muscle memory of sliding the screen and punching in my passcode.


But still. With no new camera, and no new chip, is the iPad mini 3 worth buying, since you can still get the iPad mini 2 and just deprive yourself of Touch ID? Not really. If you're in the market for a smaller tablet, I'd get the iPad mini 2. That feels like the base model now, with the Touch ID as a fancy add-on, like heated leather seats in your new car.

Apple is only offering the iPad mini 2 in 16GB for \$369 and 32GB for \$429, so get the 32GB version. The iPad mini 3 starts at \$499 for 16GB, then jumps to \$619 for 64GB and \$739 for 128GB. So if you want more than 32GB of storage, I'd go for the more capable, better future-proofed iPad Air 2.

BOTTOM LINE

All of Apple's tablets are great performers. Having five different models – in various sizes, both Wi-Fi only and with cellular – makes them more accessible than ever, since the price points range from \$299 for the

original iPad mini all the way to \$1019 for the top-end 128GB cellular iPad Air 2.

If you need a new iPad, go for the top of the line, the best one you can afford. People don't tend to update their tablets as often as their phones, and if you opt for a previous generation iPad, you'll be left behind sooner when Apple stops supporting it with updates. Then again, if your iPad is only a year or two old, and runs iOS 8 just fine, maybe you'll want to wait a year – next year's iPad Air is bound to be even better. 

– SUSIE OCHS



APPLE / IPAD AIR 2
apple.com/au

PROS Incredibly fast A8X processor makes everything feel more immediate; same great battery life; easier to see in bright sunlight

CONS 16GB isn't enough storage for the entry level model

Wi-Fi: \$619 (16GB); **\$739** (64GB); **\$859** (128GB).

Wi-Fi + Cellular: \$779 (16GB); **\$899** (64GB); **\$1019** (128GB).



APPLE / IPAD MINI 3
apple.com/au

PROS Comes in gold; Touch ID

CONS Otherwise it's the same as last year's

Wi-Fi: \$499 (16GB); **\$619** (64GB); **\$739** (128GB).

Wi-Fi + Cellular: \$659 (16GB); **\$779** (64GB); **\$899** (128GB).

Apple iMac with Retina 5K display

The new 27in iMac is among Apple's brightest lights.

Among the many new and improved technologies promoted by Apple, one of the most attractive has been the 'Retina display'. This is a marketing term rather than a technical one and refers to displays with a pixel density where individual pixels are indiscernible to the human eye. You see it touted for iOS devices as well as Apple's MacBook Pros. Like much of Apple's marketing, it's catchy and appealing to those who do not dig deeper.

However, there are occasions when the term just won't do – particularly when Apple wants to boast about the specific number of pixels that a display houses. Such is the case with the \$2999 iMac with Retina 5K display. And it wants to boast for good reason. The display is stunning.

JUST HOW GOOD IS THE DISPLAY?

Specifically, this iMac projects 14.7 million pixels (at a native resolution of 5120 x 2880 resolution), which is four times the pixels offered by the standard 27in iMac. And it does so, according to Apple, while using 30 percent less power. This is accomplished through the use of more efficient LEDs along with a special timing controller that coordinates the pixels. Additionally, Apple has introduced something it calls Compensation Film, which helps ensure solid contrast even when viewing the display off-axis.

I had the opportunity to test the base model iMac with Retina 5K display alongside a late 2012 27in iMac, and did so largely to compare the look of each display. At first glance, when viewing Yosemite's default desktop on each iMac, I didn't see a great difference between the two. With brightness cranked all the way up on each, the Retina iMac was brighter, but otherwise I'd have been hard pressed to tell one from the other. Off-axis viewing was slightly better on the new iMac – the display was clear up to about 45 degrees off-axis – but the difference wasn't breathtaking.

However, when I moved in closer, the menu bar text on the older iMac appeared hazier than that on the Retina display. As I opened a window the difference was more apparent as text was clearly sharper on the Retina iMac. It's not radically different, however – not like switching from a first- or second-generation iPad to an iPad Air, for example. Rather, it's a bit like having your eyes examined and looking through one lens that's very slightly blurry and another that's tack sharp.

It's when you zoom in on text and high-resolution images that you see just what the Retina iMac is capable of.

Obviously, most of us don't spend our time zoomed in hundreds of percent to admire our Mac's screen resolution. In many cases the benefits of the Retina display will be subtle – an effect that may make staring



at a display for hours on end less fatiguing. Where you'll see differences that can be startling is in very high-resolution images and video.

HOW GOOD IS THE PERFORMANCE?

The iMac with 5K Retina display is being touted by some as a viable alternative for professionals who can't quite make the jump to Apple's new Mac Pro. After all, it offers a display that, from another manufacturer, would cost the \$2999 Apple asks for the iMac. The base model includes a 3.5GHz quad-core Intel Core i5 processor, 8GB of memory, a 1TB Fusion Drive, an AMD Radeon R9 M290X graphics processor with 2GB of GDDR5 memory, two Thunderbolt 2 ports, four USB 3.0 ports and 802.11ac wireless. That's a mighty powerful package. But can it come anywhere close to Apple's top of the line Mac?

I thought I'd find out by conducting a few performance tests between it, Apple's top of the line Mac Pro (3.5 GHz 6-Core Intel Xeon E5 with 16GB RAM), and the late 2012 27in iMac (with a 3.2 GHz Intel Core i5 with 8GB RAM). The Mac Pro and Retina iMac, with their SSD and Fusion drives, respectively, have a significant edge in regard to reading and writing data – the older iMac's spinning hard drive just can't match their speed. So I chose tests that focused on processing and graphics power rather than disk-intensive tasks. Here's what I found.

By the numbers. For those who like raw performance numbers, I ran Cinebench's CPU and OpenGL tests on each computer. The Mac Pro scored an average CPU score of 930, the Retina iMac scored 530 and the older iMac, 452. This is a multi-core test.

In the single core test, however, the Retina iMac bested the Mac Pro. The Retina iMac scored 142, the Mac Pro 133 and the older 27in iMac, 125. This is in line with other reports on the iMac's single-core performance.

In Cinebench's OpenGL tests it also came out ahead, producing an average 88 frames per second versus the Mac Pro's 72 fps and the older iMac's 56 fps.

Tasking the Retina iMac.

Performance numbers are all well and good, but how does the Retina iMac handle the kind of chores that professionals conduct day in and day out? I tested this as well.

I began by asking each Mac to bounce a dense Logic Pro X project to a 16-bit AIFF stereo track. The Mac Pro accomplished the job in 50 seconds. The Retina iMac took one minute 12 seconds and the older iMac, one minute and 29 seconds.

I then imported into Final Cut Pro X a five-minute 1080p clip, bumped up the clip's volume by five points, applied three effects to it (50s TV,


Vignette and Super 8mm), and exported it as a 720p video using the Apple ProRes 422 codec. The Mac Pro did the job in 54 seconds, the Retina iMac finished in one minute and nine seconds and the 2012 iMac accomplished the task in one minute and 30 seconds.

(Previous to this, I exported the same clip with effects using Final Cut Pro's Apple Device 720p preset. In this case each iMac outdid the Mac Pro, with the Retina iMac doing the job in one minute and 26 seconds, the older iMac in one minute and 47 seconds and the Mac Pro coming in last at two minutes and 31 seconds. This can be explained by the iMacs taking advantage of Intel QuickSync Video, which allows i5 and i7 Macs to render H.264 video more quickly than Macs with Xeon processors.)

To hit each Mac as hard as I could, I then ripped the Maximum Movie Mode track from the Blu-ray disc of 2009's *Sherlock Holmes* and ran the resulting .mkv file through HandBrake, using the Apple TV 3 preset. It took the Mac Pro one hour and 36 minutes, the Retina iMac finished second at two hours and 24 minutes and the older iMac pulled up the rear at two hours and 53 minutes. During this process the Retina iMac's fan came on about four minutes into the process and didn't stop until the job was complete. The older iMac's fan, however, remained quiet throughout.

Given the results of these tests, it's pretty clear that for tasks that take advantage of a processor's multiple cores, the Mac Pro remains the champ. And for a computer that costs \$2000 more than the Retina iMac, it should. That said, in regard to single-core tasks, the Retina iMac appears to be the faster machine. So while well-heeled audio, video and image professionals may not prefer the Retina iMac, typical users will. And, after all, that's the primary point of today's iMac – a computer powerful (and beautiful) enough for just about everyone.

BOTTOM LINE

The iMac with Retina 5K display has a lot going for it. The display is gorgeous, at \$2999 it's like getting a free computer with your high-resolution display, it has enough ports to please all but the most demanding user, it won't jack up your power bill and it's no slouch when it comes to performance. Apple should be proud to have made such a thing. You'll be just as proud to own one. 

– CHRISTOPHER BREEN



APPLE
apple.com/au

PROS Gorgeous display; plenty of ports; solid performance

CONS Fan comes (and stays) on when very heavily tasked

\$2999



iTunes 12

Apple's new iTunes 12 makes the music manager cleaner, clearer and easier to use. But it's still missing out on a whole generation of social media.

Apple iTunes is the beating heart of music, movies, podcasts and other media sitting on a Mac. With iTunes you also manage your iPhone, iPad and any iPods you may have. Even if you don't like music, you use iTunes, thanks to its status as the iPhone and iPad's backup, media manger and integration with other apps.

No matter how you feel about iTunes (and it has many detractors) you will end up using it. So iTunes 12 is an important program. With iTunes 12 Apple has introduced a stylish new interface and a few (not many) features. Although with so many features already included this is perhaps a blessing.

WHAT IS iTUNES FOR?

Despite its Swiss Army Knife nature, we tend to think of iTunes as a music player first and foremost. It's telling that Apple's new redesigned iTunes logo (now red instead of the historic blue) keeps a musical note motif.

iTunes does a lot more than just play music. Some people argue that it does way too much and has done for years. Alongside playing tunes it displays video files (TV Shows and Movies), audiobooks and podcasts.

iTunes 12 also downloads, stores and updates apps for iPhone and iPad, and iTunes manages the content on iPad, iPod and iPhone devices, as well as acting as a backup and update centre for iOS devices (which became invaluable when iOS 8 was too large for many devices to back up over the air). On top of all this it has an integrated iTunes Store and

App Store for buying music, movies, apps, podcasts and all other kinds of media (including iTunes U educational content, tones and internet radio).

It's odd that a company so capable of ripping apart programs and taking them back to basics (iMovie '11 and the recent iOS-like iWork apps are prime examples of this) has allowed iTunes to continue juggling so many tasks.

Apple has been steadily adding features to iTunes for several years, and the only thing that has been removed from it recently now is iBooks, with a separate iBooks app with its own iBooks Store.

WHAT'S NEW IN iTUNES 12

Apple iTunes 12 has a new design. This is somewhat surprising given that Apple introduced a radical new look to iTunes with version 11, but in light of Apple's move towards flat design across OS X and iOS it's understandable.

Icons for media. The media selection menu in the top-left has been replaced with a set of icons: Music, Movies and TV Shows are available and a More icon enables you to access Podcasts, iTunes U, Apps and other items. An Edit option enables you to add icons you frequently use to the icon bar.

Integrated Library and iTunes

Store. In the middle of the iTunes window sits options for local media (Music and Playlists) and the iTunes Store. The store changes based on what media you have chosen. Music goes to the Music Store and apps

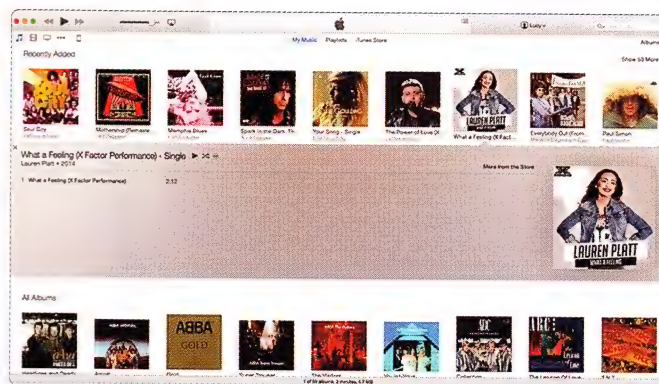
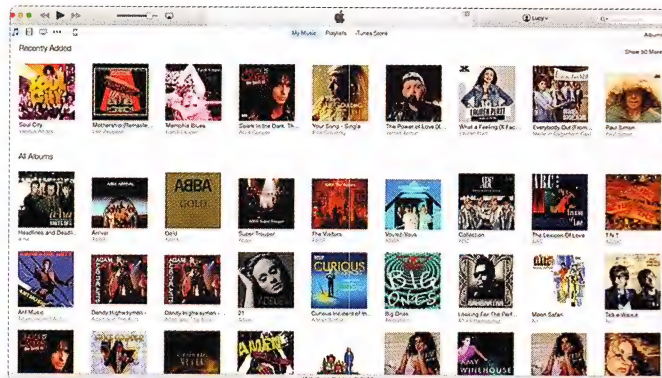
to the App Store. While it's easy to be cynical about Apple making the store yet more prominent, I like the direct integration of media and the appropriate store.

Sorting menu. Tucked away in the right is a drop-down menu for choosing organisational groupings (singles, albums, artists for music, or movies and TV shows for videos.) This doesn't always appear, but offers options based on what media icon is selected.

The main window displays content and album view is the default mode. It now displays a row of recently added items across the top. The sidebar is wholly missing from the default view, but returns when you click on Playlists.

There are a few other stylistic changes too, the interactive background that responds to album art is a subtler effect, and it displays the original album art in a square. It's a small touch but I like it. In general iTunes 12 is neater, and I find it easier to use.

The Get Info window has been radically overhauled and now splits all the information across a series of tabs. It's a prettier option, but more long-winded for manually editing track information. It's a reflection of the increasing stability of our music tracks. In the presence of ongoing streaming options and lack of optical drives most people are no longer illegally downloading tracks or ripping CDs. I still buy the odd track from the iTunes Store, but my iTunes music collection has been pretty static for about a year now.



WHAT'S STILL AROUND IN iTUNES 12

The new features introduced in iTunes 11 remain: Up Next and Mini Player are still present and correct (I confess to hardly using either mode). Apple iTunes Match still syncs up music across devices, and enables you to stream your entire collection over the air.

WHAT'S MISSING IN iTUNES 12

For an app so thoroughly stuffed with features it's odd that my biggest problem with iTunes seems to be what's missing.

I am surprised that the much-mooted HD Audio has not arrived in iTunes 12. Many people were expecting Apple to reach out to audiophiles with 24-bit audio.

The bigger problem is the ongoing lack of recommendations, shared playlists and social media integration. Apple doesn't have any true rivals when it comes to the management of media files in OS X. Apps like CopyTrans, MediaMonkey and WinAmp all offer interesting features for the discerning music pro, but they haven't tempted significant numbers of people away from iTunes.

The big rivals to iTunes are music streaming services like Spotify and Google Play Music.

Renting music, or listening to ad-interspersed music, is a very

different experience to owning and managing your own tracks, so it's not an easy comparison to make. There is a lot to be said for having an app that manages all your tracks.

However, Spotify and other streaming services offer a range of interesting features simply not found in iTunes. Spotify has fan-created playlists for all kinds of subjects. If I want to listen to Baroque music, then a fan of that type of music is creating and maintaining a playlist of tracks far better than any album I can buy. Irish Folk Metal? Not a problem. Songs for sleeping to at night? Spotify has that. Autumnal Acoustic tracks... of course you can listen to that. There's a user-curated playlist for every imaginable thought in your head.

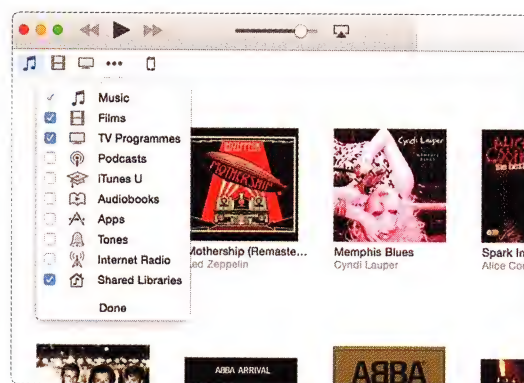
You can also hook up Spotify to Facebook and see what your friends are listening to, and listen to the same tracks without paying for them. Apple's own movement in this area, Ping, was a rare miss for the company (probably because you had to pay for music to listen to it). We think it's time for Apple to return to social media in a big way.

BOTTOM LINE

The media management side of iTunes remains as stable as ever, and I like the new interface. It's a shame that the story about iTunes has become

what is not there, rather than what it features. Music has, for most people, always been a social experience and iTunes is sorely missing out on the social interaction aspects of rivals like Spotify. Apple iTunes is a very lonely place to listen to music if you've used Spotify for a while.

— LOU HATTERSLEY



APPLE
apple.com/au

PROS Cleaner interface; neat integration of media library and iTunes Store; apps starting to become less prominent

CONS Remains a cluster of many disparate services; lacks social media integration; no socially curated playlists; missing HD Audio

FREE

Pentax K-50

A decent entry-level DSLR that braves the elements.

A year since its release, Ricoh Imaging's Pentax K-50 still touts something that no other consumer grade entry-level SLR camera offers: weather sealing. While it's not enough protection to save you if you dunk the camera in a pool, this sealing should give you peace of mind while using the camera in light weather or in the occasional splash zone. The K-50 has other appealing features, including its low price and the fact that it can be custom ordered in up to 120 colour combinations.

DESIGN

The camera's deep grip felt comfortable and I appreciated the indented finger rests at front (for your middle finger) and back (for your thumb). The camera felt balanced, unlike some models I've tried, which helps with its weight.

The K-50's design feels familiar, mixing elements from both Nikon and Canon cameras. The easy-to-turn 360-degree dial on top has standard shooting modes: manual, shutter priority, aperture priority, automatic, movie and program. Scene mode for 19 different creative presets, including macro as well as uncommon options like candlelight, night scene HDR and pet. The dial itself has three other options that you don't usually find in an SLR: TAV, for controlling both shutter and aperture, while auto-adjusting exposure via other settings; SV, for prioritising ISO light sensitivity; and B for bulb, which helps achieve long exposures. I enjoyed using the TAV setting, simply because I could set the aperture and shutter speed, and let the camera figure out what ISO I needed to shoot at those settings.

On top of the grip sits the first of two horizontal navigation wheels. The control navigation did take me a bit to get used to. It's not onerous, per se, but it still requires a little more thought than you might expect. But the wheels are easy to turn, the buttons easy to press, and I appreciated being able to use the four-way nav buttons (with centre OK button) to make my way through screens, sometimes in lieu of using the rear scroll wheel.

While the on-screen display is colourful, and I appreciated its big, clear numbers, the Pentax's menu design is text-heavy, with tiny icons and a dated look compared to more modern, clean graphics of competing models.

CAPTURE

The Pentax K-50 has 11 auto-focus point, nine of which are cross-point. I found that adequate for composing images, though I still appreciate more points when I can get them.


The camera's 16.3-megapixel sensor has a 1.5x focal length conversion factor on the included 18-55mm lens. Images shot at all focal lengths looked good. But I was disappointed with the noise in images. Colours often looked inaccurate and oversaturated at default settings. At ISO 800, images looked visibly noisy, and at 1600 they were simply more so. Higher ISOs like 3200 yielded soft images, with loss of detail.

Focus speed seemed sufficiently fast for everyday shooting. So, too, did the five-frames-per-second capture

speed, which is competitive for cameras of this price. This speed will work well to capture fast-moving action, though some sports may benefit from more frames per second.

This model lacks an external microphone input. This means you're limited to the single built-in mic for video capture. So even though you can capture 1080p video, we'd recommend looking elsewhere if video factors big into your plans for this camera.

The included lithium-ion battery is good for about 480 shots. But another unique benefit of the K-50: it can use four AA batteries, a real boon if you're travelling and in a bind for power.

Bottom line. The Pentax K-50 is chock-full of features, and those features – many of them, including in-camera vibration reduction and weather sealing, unique at this price – increase its allure. But its mixed image quality constrains its appeal. 

– MELISSA J PERENSON



PENTAX

www.pentax.com.au

PROS Weather sealing to protect against water, dust; speedy menu navigation

CONS Images are very noisy after ISO 800; colours appear oversaturated and inaccurate at default settings

\$649 (BODY ONLY); **\$689** (18-55 WR L LENS);
\$999 (18-135 WR LENS)



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Plex Media Server

If you're bumping up against the limitations of Apple's iTunes ecosystem, Plex Media Server may offer the extra flexibility you're looking for.

Similar to iTunes, Plex Media Server runs on your computer and lets you access your multimedia library from wired and wireless devices around your home. It runs on Mac, Windows and several flavours of Linux, as well as Network Attached Storage devices from Netgear, Synology, Thecus, QNAP and others. This means you don't need to leave a computer running to tap into your home entertainment library.

Once you've installed Plex Media Server, you can configure it via the web browser on any computer on your home network. It supports music, videos and photos. You can catalogue your library to make it easy to find what you're looking for and pick up where you left off watching. You can specify local or network folders for it to monitor in search of new content and it supports a much wider range of formats than the iTunes ecosystem. It can transcode video on the fly, so you can watch files that otherwise wouldn't play on iGadgets.

When the Plex software finds new media files in your library it checks with online databases to identify them – adding artist details and artwork as well as dividing TV shows into series and seasons. It even downloads theme music to play in the background as you browse episodes. This kind of flexibility is handy if you tend to source content from beyond the iTunes ecosystem.

Plex can play music purchased from Apple, but not movies and TV shows due to the digital rights management. The upside is that, unlike Apple's Home Sharing and Family Sharing, there's no limitation

on the number of users that can tap into your Plex ecosystem.

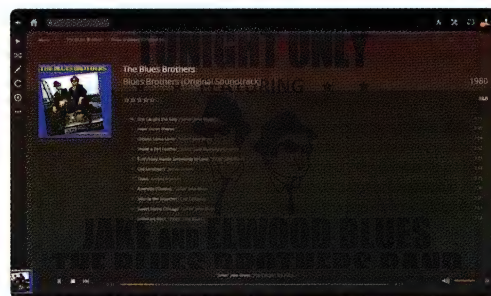
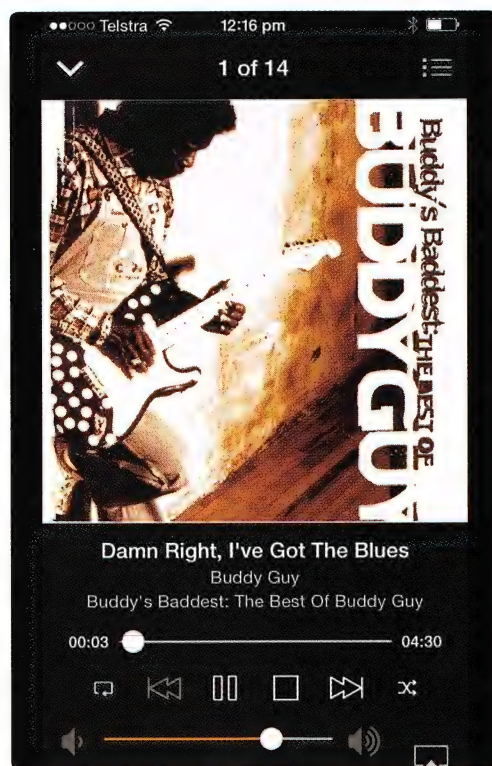
Along with Plex Media Server, you also need a Plex client on your end device. Once again, the Plex ecosystem is far more flexible than iTunes. You'll find Plex apps for iOS, Android and Windows Phone 8 as well as Mac, Windows and Linux (or you can use a desktop web browser). Plex is also built into Samsung Smart TVs and Roku set-top boxes, plus there are apps for the Xbox One and Xbox 360 (these two require a Plex Pass).


The lack of a Plex app for the Apple TV is the only major omission here, although there are clunky workarounds. Thankfully, there is support for AirPlay video streaming in the iOS app. Meanwhile, the desktop browser interface supports Chromecast streaming.

If this still isn't enough, you can also enable Plex's DLNA server, which makes your home entertainment library visible to a lot more devices on your home network, including many games consoles, Blu-ray players and Personal Video Recorders. Of course, the whole point of Plex is to overcome the hit and miss nature of DLNA streaming, but it's good to have as a fallback.

If you sign up for a Plex Pass subscription (from US\$4.99 per month), you can also tap into your home entertainment library when you're on the road.

You can stream content across the internet from home, or you can even stream from a friend's home Plex server. If you can't spare the mobile bandwidth, you can also download content to your iGadget for offline access.



Bottom line. If you live a totally iCentric lifestyle, then you may not see the need for Plex, but if you're catering to a mixed household of devices and/or people on the go, then it could be a godsend. It's not going to completely replace iTunes, but it could be the perfect addition to make the most of your home entertainment library. 

— ADAM TURNER



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PROS Cross-platform; remote access

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Adobe Photoshop Elements 13

Elements 13 is a great way to step up from iPhoto, but it can't do a lot you couldn't do with version 12's Expert Mode and a little skill.

Elements 13 isn't the most feature-packed upgrade ever, but it's now Retina display-happy and it's got some timely new stuff for beginners: creating a personalised Facebook Cover image, crop suggestions, variations on Quick mode's effects, a new selection refinement tool, three Guided Edits for converting photos to black and white, plus tutorials that are more easily discoverable.

ORGANISER UPDATES

Elements 13 is now optimised so that its interface and your photos are much sharper on Retina displays. If you use it to import and manage photos, the first noticeable changes are in the Organiser. An eLive button gives you access to online tutorials and photographic inspiration (the button's available in the Editor, too), as well as a direct link to the Adobe Elements online support page.

Media view now displays photos flush against each other in a grid, sans image details (ratings, capture date, etc.) or the Organiser's grey background. Albums and folders sport their own tabs, enabling you to view them separately. Opening the Tags panel – to add keywords, face, place and event info – reveals checkboxes to each tag's left, making them easier to apply. Slideshow creation was also simplified, and you can now use any email program to send photos from Elements.

NEW EFFECTS VARIATIONS AND GUIDED EDITS

The popular Effects in Quick mode now include four variations on each of the 10 effects, for a total of 50 single-click treatments. Switch to Expert

mode and you'll find the effects applied to a duplicate layer, complete with a layer mask that, with some skill, lets you hide the effect from parts of your image. iPhoto's effects are adolescent in comparison and they can only be applied to the whole photo.

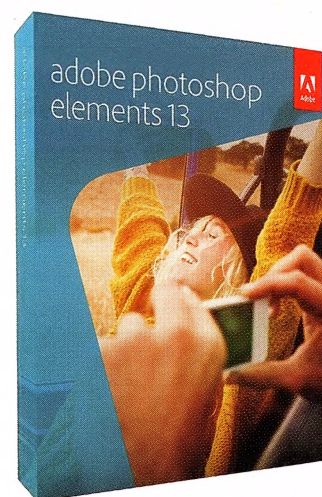
Guided mode also has three new edits involving black and white. B&W Color Pop lets you pick a colour to 'pop' (remain in colour) from four presets – red, yellow, blue or green – while the rest of the photo goes greyscale, something that's impossible in iPhoto.

EXPERT MODE IMPROVEMENTS

Grab the Crop tool in Expert mode and Elements 13 analyses your photo for content (faces and horizon lines) and displays four crop suggestion thumbnails in the Options bar, nice starting points for beginners. Any aspect ratio restriction you make is preserved in the crop suggestions.

The Quick Selection tool inherited a Refine Selection Brush that lets you drag across selection edges to have Elements 13 reanalyse them. As you drag, the brush switches between add or subtract modes based on where you drag (inside or outside of the selection), the inner circle of the brush cursor snaps more closely to edges and the outer circle produces softer edge-snapping. The brush also has an edge smoothing mode that keeps selections from being so jagged. (iPhoto can't make selections at all.)

A new Photomerge Compose command nestled in the Enhance menu helps you cut something out of one photo and paste it into another, also an impossible task in iPhoto. The Auto Match Color Tone button helps you match lighting conditions between



Making it pop. Using the new B&W Color Pop Guided edit, you can easily produce a partial colour effect.



the photos, though you can adjust lighting manually via four sliders.

There's also a new Content Aware option in the Fill dialogue box, which is pure magic for removing objects from photos. Simply put, Elements analyses pixels surrounding your selection and then intelligently fills it.

Bottom line. If you've exhausted iPhoto, or if you're a beginner looking to be more creative, Elements 13 gives you some very nice new features; however, with enough skill, you can do all of that stuff in version 12's Expert mode. That said, if Elements' old photo email system drove you crazy, or if you routinely remove objects from your photos, you'll benefit from the upgrade.

— LESA SNIDER




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PROS Effect variations; new content aware fill

CONS Few new offerings for experts

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